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☛PENTIUM® II CPU INSTALLATION GUIDE.....P-1

REMARK

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Chapter 1
Motherboard Feature

SPECIFICATIONS

System Chipset	V/A VT82C691 chipset, Winbond 83877TF
CPU Bus Speed	Pentium® ě 66/100 MHz CPU
CPU Clock	233MHz ~ 450MHz
Memory Subsystem	Expandable to 384MB(3 banks) with 168-Pin SDRAM(DIMM) Socket X3
Integrated I / O	Two high speed 16550 compatible serial ports, one Multi-Mode Parallel Port fixed SPP/EPP/ECP standard Two PCI Bus master Ultra DMA/33 IDE port (up to 4 IDE Devices) Support two 360KB / 720KB / 1.2MB / 1.44MB / 2.88MB / floppy disk driver Support LS120 drives, ZIP 100 drives Support two USB ports Support IrDA TX / RX header
BIOS	2MB Award PnP BIOS with enhanced ACPI feature for PC98 compliance. Supports Trend™ChipAway AntiVirus. DMI feature support Support secondary device boot

On-Board ESS1898 (Only For B782)	One speaker, one MIC, one Lin in, one Game port connector
Expansion slot	Four PCI Master Slots & Two 16-bit ISA Slots Support 3.3/5V PCI bus Interface
EXTRA Function	Suspend LED on/off Win95 soft power off External SMI Wake up by ring Wake On LAN
Connector	PS/2 Keyboard and PS/2 mouse Connector
Others	Windows 98/95 Compatible
Dimension	4-layer PCB, ATX size (305mm x 185mm)

POWER OFF CONTROL SOFTWARE

The motherboard design supports software power off Control feature through the SMM code in the BIOS under Win95 operating system environment. This is ATX form factor feature and you should use ATX power supply.

First, you should connect the power switch cable (provided by the ATX case Supplier) to the Jumper on the motherboard. In the BIOS screen of "POWER MANAGEMENT SETUP", choose "User Defined"(or min power saving or Max power saving)in "POWER MANAGEMENT" and choose "Yes" in "PM Control by APM".

In Windows 95 the " SHUT DOWN " option ,the computer' s Power will switch off automatically and put the PC in a suspend mode. This will be indicated by a bunking power light. To restart the system , simply press the Power Button.

In B782, ESS sound chipset is add-on. You can enjoy the 3D effect sound without sound card. The user-friendly sound card control panel also is free. You just install the software of sound control panel from our CD-title and enjoy the clearly sound, when you get our motherboard - B782.

PACKAGING CHECK LIST

The motherboard comes securely packed in a durable box and shipping carton. If any of the above items are missing or damaged , please contact your supplier.

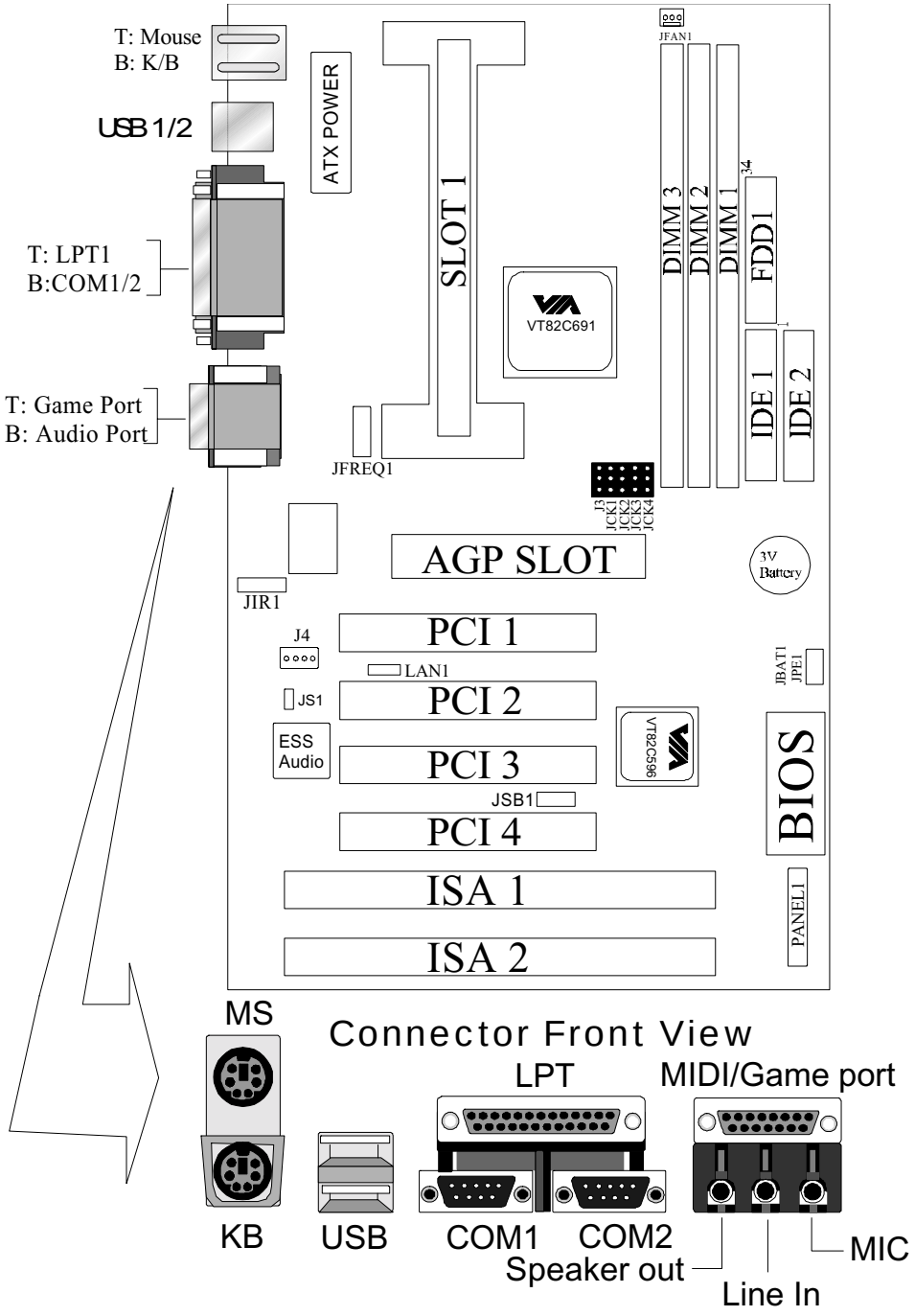
The motherboard contains:

Q' TY	Description
1	motherboard : B782/B783
1	CD-title : Driver & AP
1	Cable : Enhanced IDE connector
1	Cable : F.D.D connector

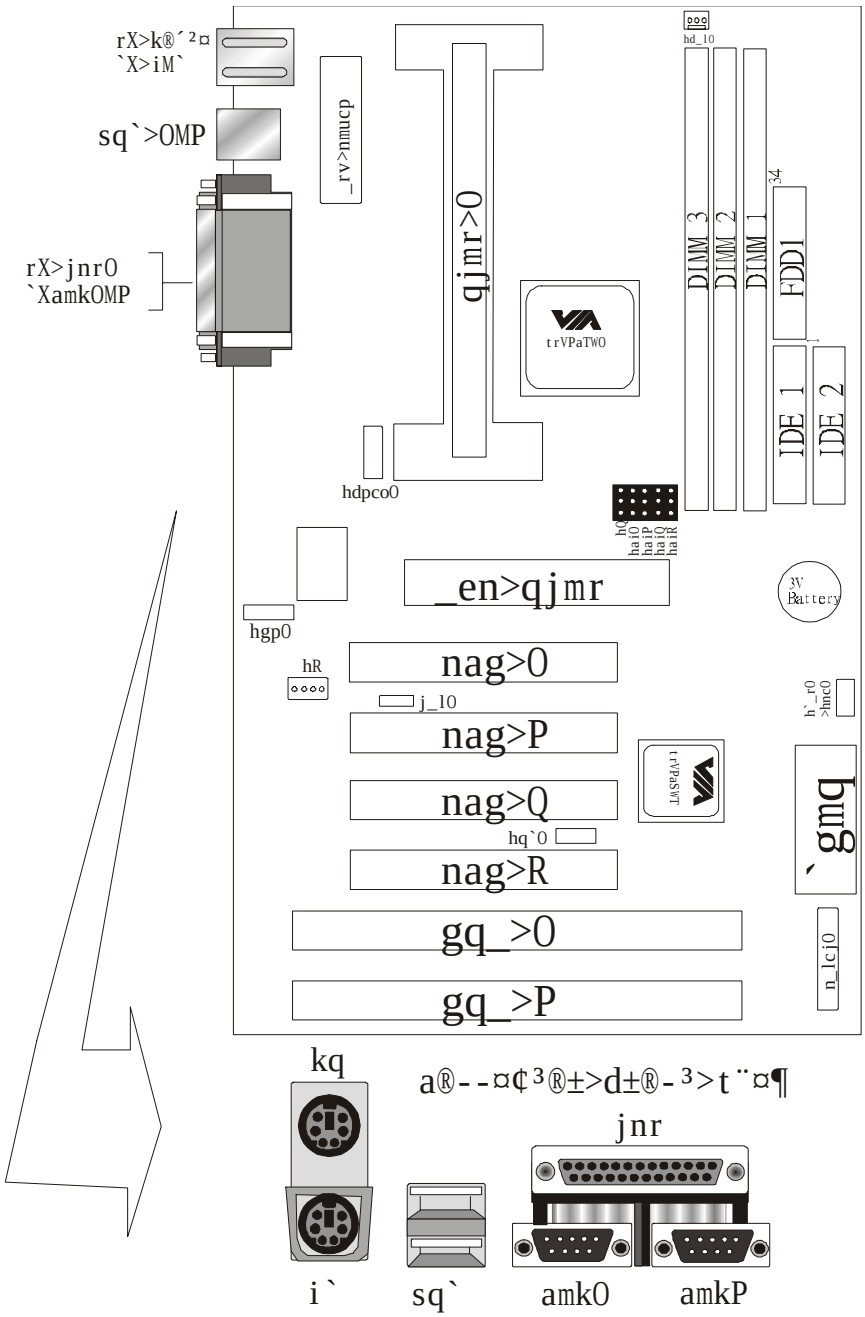
1 Manual : User’ s manual

Chapter 2
SETUP GUIDE

B782 Motherboard Layout Drawing



B783 Motherboard Layout Drawing



JUMPER & CONNECTOR SETTING

Connector Setting

PS1- PS/2 Keyboard/ PS/2 Mouse Connector

Pin	Description
1	**Keyboard Data**
2 , 6	N.C.
3	Ground
4	+5V
5	Keyboard Clock

Pin	Description
7	Mouse Data
8 , 12	N.C.
9	Ground
10	+5V
11	Mouse Clock

USB1-Universal Series Bus (USB) Connectors

USB1 Pin	Signal Name	USB2 Pin	Signal Name
1	USB VCC 0	1	USB VCC 1
2	USB Data -	2	USB Data -
3	USB DATA +	3	USB DATA +
4	USB GND 0	4	USB GND 1

JS1-ESS1898 Sound chip (Only for B782)

Description	JS1
Disabled	Open
Enabled	Short

CN1 – ATX Power Connector

Pin	Description
1,2,11	+ 3.3 V
3,5,7,13,15,16,17	Ground
4,6,19,20	+ 5 V
8	POWER GOOD
9	5VSB
10	+12 V
12	-12 V
14	PS-ON
18	- 5 V

JIR1 – Infrared Connector : IR

Pin	Signal Name
1	VCC
2	FIRRX
3	IRR X 2
4	GND
5	IRTX2

JBAT1 – CMOS CLEAR

Description	Pin
Normal (default)	1-2
Clear CMOS	2-3

LAN1

Description	Pin
LAN IN	1
GND	2
5V-SB	3

JPE1-Flash ROM

Description	Pin
2MB	1-2
1MB	2-3

LPT1- PRINTER Connector

Pin	Signal Name	Pin	Signal Name
1	Strobe-	14	AFD
2	Data Bit 0	15	Error
3	Data Bit 1	16	INIT
4	Data Bit 2	17	SLCTIN
5	Data Bit 3	18	GND
6	Data Bit 4	19	GND
7	Data Bit 5	20	GND
8	Data Bit 6	21	GND
9	Data Bit 7	22	GND
10	ACK	23	GND
11	Busy	24	GND
12	PE	25	GND
13	SLCT	26	GND

COM1,COM2 - Serial Connectors

Pin	Signal Name	Pin	Signal Name
1	DCD	6	DSR
2	SIN	7	RTS
3	SOUT	8	CTS
4	DTR	9	RI
5	GND	10	NC

J3-IO Queue Depth selection

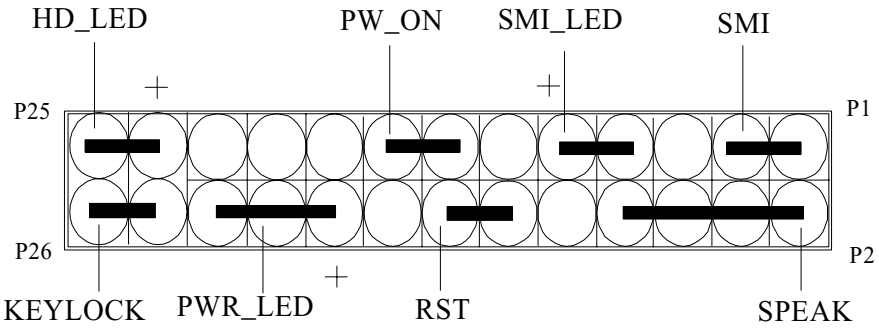
IOQ Depth	J3
1	2-3
4	1-2 (Default)

JSB1- For Sideband Signals Connector

Ex. CREATIVE SB-LINK Connector

Pin	Description
1	-GNTA
2,5	GND
3	NA
4	-REQA
6	SERIRQ

PANEL1 – OTHER JUMPER SETTING



CPU TYPE SELECT

Pentium Processor

JFREQ1: Ratio selection for CPU clock and host bus clock

Core Freq./Bus Freq.	JFREQ1
2/1	1-2, 3-4, 5-6, 7-8
3/1	1-2, 5-6, 7-8
4/1	3-4, 5-6, 7-8
5/1	5-6, 7-8
5/2	1-2, 3-4, 7-8
7/2	1-2, 7-8
9/2	3-4, 7-8
11/2	7-8

Clock Synthesizer

JCK1~4: Clock Frequency Selection

CPU	AGP	PCI	SDRAM	JCK1	JCK2	JCK3	JCK4
100	66.6	33.3	100	1-2	1-2	2-3	1-2
100	66.6	33.3	66.6	1-2	1-2	2-3	2-3
66.6	66.6	33.3	66.6	1-2	1-2	1-2	2-3

- **When CPU Frequency is 66.6MHz, SDRAM is 66.6MHz**
- **When CPU Frequency is 100MHz, SDRAM has two Frequency: One is 66.6MHz, the other is 100MHz for your choice.**

CPU Bus Speed – 66.6MHz part :

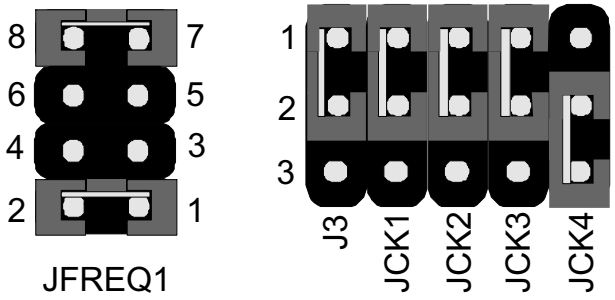
1. 233MHz (SDRAM Frequency is 66.6MHz)

JFREQ1

1-2	3-4	5-6	7-8
Short	Open	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	1-2	2-3



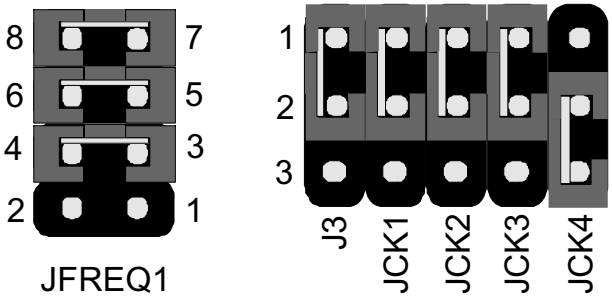
2. 266MHz (SDRAM Frequency is 66.6MHz)

JFREQ1

1-2	3-4	5-6	7-8
Open	Short	Short	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	1-2	2-3



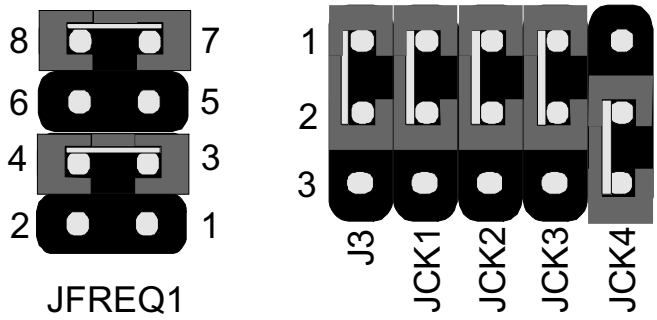
3. 300MHz (SDRAM Frequency is 66.6MHz)

JFREQ1

1-2	3-4	5-6	7-8
Open	Short	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	1-2	2-3



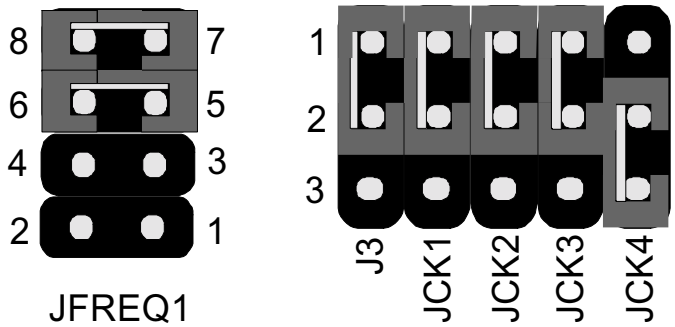
4. 333MHz (SDRAM Frequency is 66.6MHz)

JFREQ1

1-2	3-4	5-6	7-8
Open	Open	Short	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	1-2	2-3



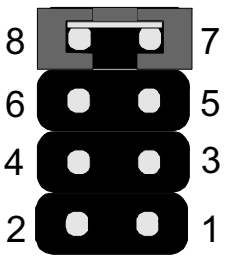
5. 366MHz (SDRAM Frequency is 66.6MHz)

JFREQ1

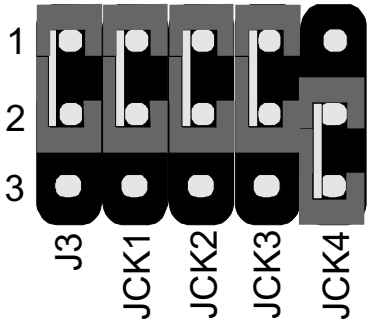
1-2	3-4	5-6	7-8
Short	Open	Open	Open

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	1-2	2-3



JFREQ1



CPU Bus Speed – 100MHz part (SDRAM Frequency is 66.6MHz)

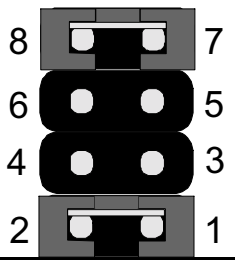
1. 350MHz

JFREQ1

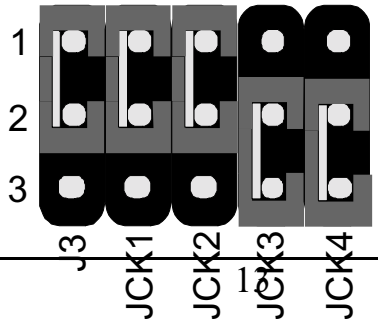
1-2	3-4	5-6	7-8
Short	Open	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	2-3



JFREQ1



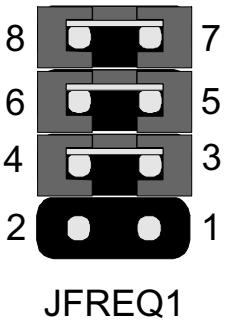
2. 400MHz

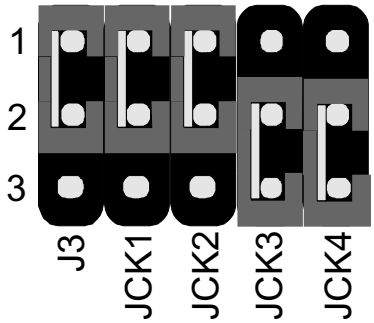
JFREQ1

1-2	3-4	5-6	7-8
Open	Short	Short	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	2-3





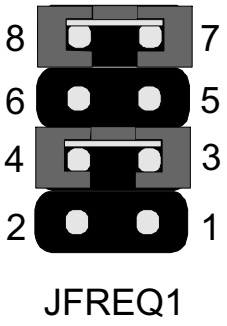
3. 450MHz

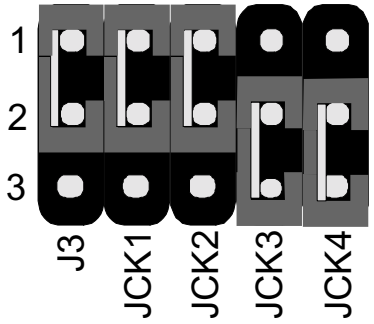
JFREQ1

1-2	3-4	5-6	7-8
Open	Short	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	2-3





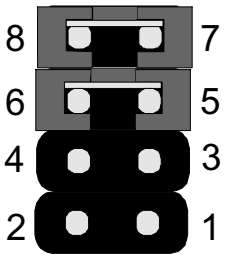
4. 500MHz

JFREQ1

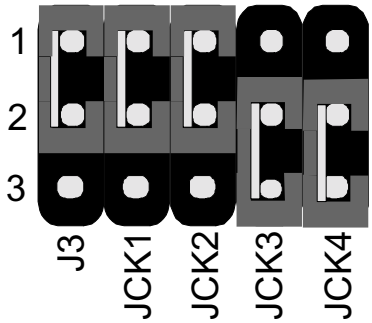
1-2	3-4	5-6	7-8
Open	Open	Short	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	2-3



JFREQ1



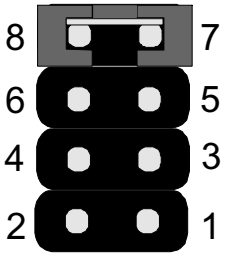
5. 550MHz

JFREQ1

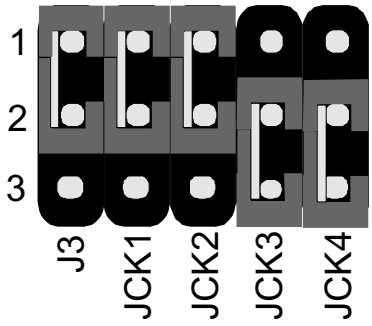
1-2	3-4	5-6	7-8
Open	Open	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	2-3



JFREQ1



CPU Bus Speed – 100MHz part (SDRAM Frequency is 100MHz)

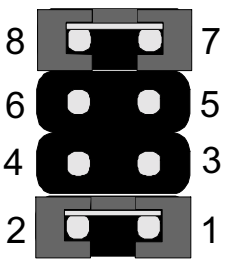
1. 350MHz

JFREQ1

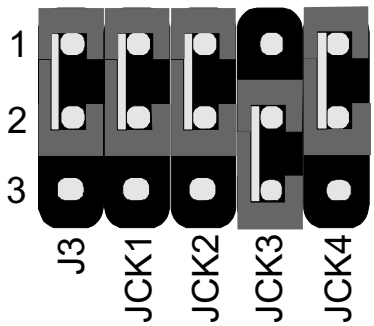
1-2	3-4	5-6	7-8
Short	Open	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	1-2



JFREQ1



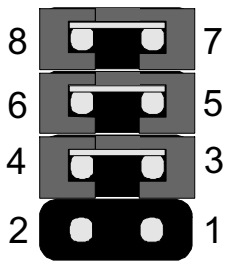
2. 400MHz

JFREQ1

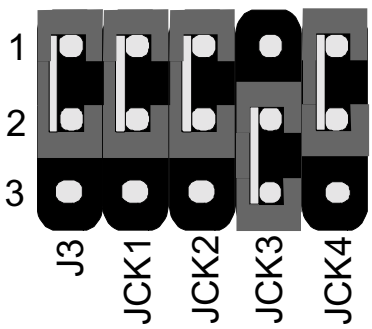
1-2	3-4	5-6	7-8
Open	Short	Short	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	1-2



JFREQ1



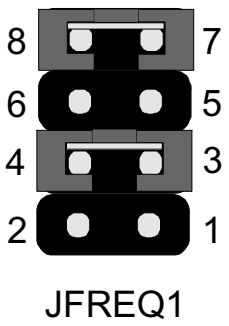
3. 450MHz

JFREQ1

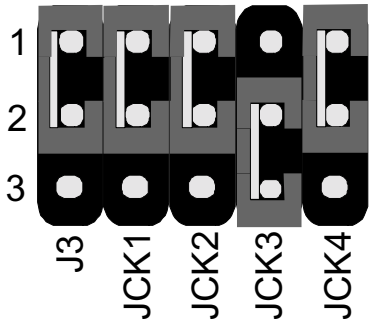
1-2	3-4	5-6	7-8
Open	Short	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	1-2



JFREQ1



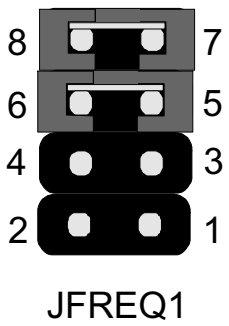
4. 500MHz

JFREQ1

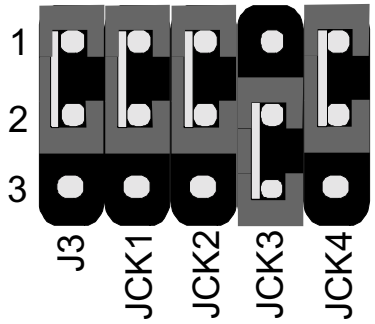
1-2	3-4	5-6	7-8
Open	Open	Short	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	1-2



JFREQ1



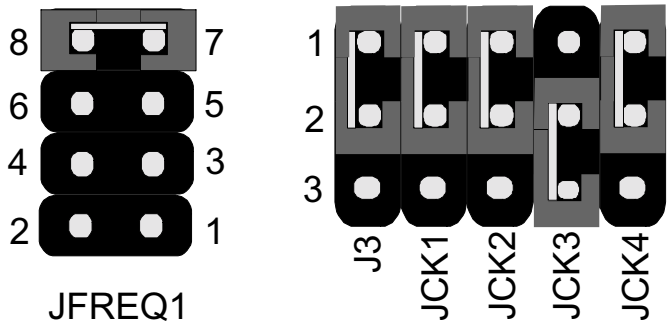
5. 550MHz

JFREQ1

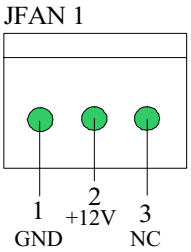
1-2	3-4	5-6	7-8
Open	Open	Open	Short

JCK1~JCK4 (J3 :1-2 is default for IO Queue Depth)

JCK1	JCK2	JCK3	JCK4
1-2	1-2	2-3	1-2



FAN CONNECTOR



MEMORY INSTALLATION

No jumper setting is necessary for DRAM setting, BIOS will check DRAM type and size automatically. B782 motherboard contains 3 by 168-pin DIMM sockets(DIMM1,DIMM2,DIMM3). B782 motherboard has table-free (or auto-bank) feature and user can install DIMM into any bank. The three DIMMs Sockets for system memory expansion from 8MB to 384 MB. Each bank provides 64-bit wide data path.

NOTE: Samples of System Memory Combinations Options

DIMM1	DIMM2	DIMM3	TOTAL
8MB	---	---	8MBytes
---	8MB	---	8MBytes
---	---	8MB	8MBytes
8MB	8MB	---	16MBytes
---	8MB	8MB	16MBytes
8MB	---	8MB	16MBytes
16MB	---	---	16MBytes
---	16MB	---	16MBytes
---	---	16MB	16MBytes
8MB	8MB	8MB	24MBytes
16MB	8MB	---	24MBytes
16MB	---	16MB	32MBytes
16MB	16MB	---	32MBytes
---	---	32MB	32MBytes
---	32MB	---	32MBytes
32MB	---	---	32MBytes
8MB	16MB	16MB	40MBytes
32MB	32MB	---	64MBytes
---	32MB	32MB	64MBytes
64MB	---	---	64MBytes
64MB	64MB	---	128MBytes
64MB	64MB	---	128MBytes
:	:	:	:
:	:	:	:
128MB	128MB	128MB	384MBytes

Chapter 3
AWARD BIOS SETUP

Award BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type information is stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

ENTERING SETUP

Power on the computer and press <Del> immediately will allow you to enter Setup. The other way to enter Setup is to power on the computer , when the below message appears briefly at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press <Ctrl>, <Alt>, and <Esc> keys.

TO ENTER SETUP BEFORE BOOT PRESS CTRL-ALT-ESC OR DEL KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously press <Ctrl>, <Alt> and <Del> keys. If you do not press the keys at the correct time and the system does not boot , an error message will be displayed and you will again be asked to,

PRESS F1 TO CONTINUE, CTRL-ALT-ESC OR DEL TO ENTER SETUP

Control Keys

Up Arrow	Move to previous item
Down Arrow	Move to next item
Left Arrow	Move to the item in the left hand

Right Arrow	Move to the item in the right hand
Esc Key	Main Menu Quit and not to save changes to CMOS Status Page setup menu and Option Page Setup Menu Exit current page and return to Main Menu
PgUp Key	Increase the numeric value or make changes
PgDn Key	Decrease the numeric value or make changes
F1 Key	General help, only for Status Page Setup Menu and Option Setup Menu
F2 Key	Change color from total 16 colors
F3 Key	Calendar, only for Status Page Setup Menu
F4 Key	Reserved
F5 Key	Restore the previous CMOS value from BIOS, only for Option Page Setup Menu
F6 Key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
F7 Key	Load the default
F8 Key	Reserved
F9 Key	Reserved
F10 Key	Save all the CMOS changes, only for Main Menu

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>.

The Main Menu

Once you enter Award BIOS CMOS Setup Utility, the Main Menu will appear on the Screen.. Use arrow keys to select among the items and press to accept or enter the **sub-menu.**

ROM PC/ISA BIOS (2A6LFPN9)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURE SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	HDD LOW LEVEL FORMAT
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit	←↑↓→ : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Onboard I/O, IRQ, DMA Assignment….	

Standard CMOS Setup

This setup page includes all the items in a standard compatible BIOS.

BIOS Features Setup

This setup page includes all the items of Award special enhanced features.

Chipset Features Setup

This setup page includes all the items of chipset special features.

Power Management Setup

This menu provides functions for Green products by allowing users to set the timeout value for monitor and HDD.

PNP / PCI CONFIGURATION SETUP

This menu allows the user to modify PNP / PCI configuration function.

Load BIOS Defaults

BIOS defaults indicates the most appropriate value of the system parameter which the system would be in minimum performance.

Load Setup Defaults

Chipset defaults indicates the values required by the system for the maximum performance.

INTEGRATED PERIPHERALS

This section page includes all the items of IDE hard drive and Programmed

Input / Output features.

Supervisor / User Password Setting

Change, set, or disable password. It allows you to limit access to the system and Setup, or just to setup.

IDE HDD Auto Detection

Automatically configure hard disk parameters.

HDD Low Level Format

If supported by your system, this provides a hard disk low level format utility.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

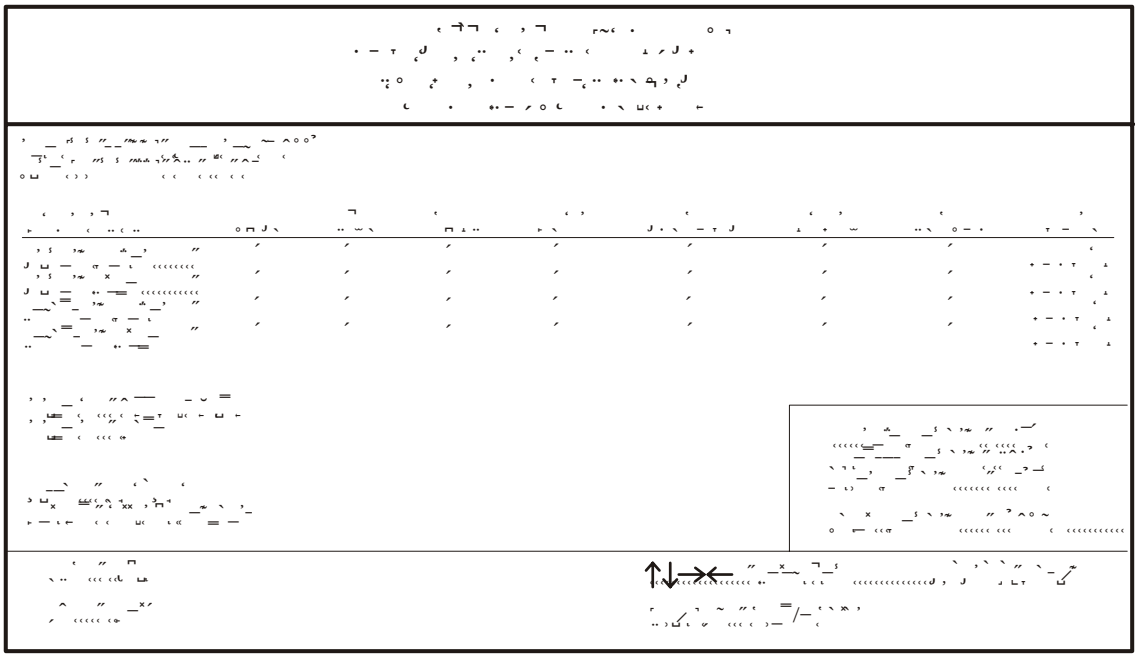
ON NOW FUNCTION

User can select the way to power on system from BIOS Setup. Choose " Integrated Peripheral " item , user can setup " POWER ON FUNCTION"

1. BUTTON ONLY: Power on by power button only.
2. PASSORD: Select "KB Power on Password" then enter. Key in password and save CMOS SETUP. Then user can power on system by Key-in Password.
3. HOT KEY: Select "HOT KEY Function" ,"HOT KEY POWER ON "
4. Mouse Left: Power on by double click mouse left button.
5. Mouse Right : Power on by double click mouse left button.

Standard CMOS Setup

The item 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 in each item.



BIOS Features Setup

ROM PCI/ISA BIOS (2A6LFPN9)
BIOS FEATURE SETUP
AWARD SOFTWARE, INC

Anti-Virus Protection	: Enabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
CPU L2 Cache ECC Checking	: Enabled	D0000-D3FFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D4000-D7FFF Shadow	: Disabled
Boot Sequence	: A, C ,SCSI	D8000-DBFFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	DC000-DFFFF Shadow	: Disabled
Boot Up Floppy Seek	: Disabled		
Boot Up NumLock Status	: On		
Gate A20 Option	: Fast		
Memory Parity/ECC Check	: Enabled		
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Typematic Delay (Msec)	: 250		
Security Option	: Setup		
PCI/VGA Palette Snoop	: Disabled	Esc : Quit	↑↓→← : Selection Item
OS Select For DRAM > 64MB	: Non-OS2	F1 : Help	PU/PD/+/- : Modify
HDD S.M.A.R.T. capability	: Disabled	F5 : Old Values	(Shift) F2 : Color
Report No FDD For WIN95	: No	F6 : Load BIOS Default	
		F7 : Load Setup Default	

Virus Warning

This category flashes on the screen. During and after system boots up, any attempt to write to the boot sector or partition table of the hard disk drive will halt the system and the following error message will appear, in the mean time , you can run anti-virus programs to locate the problem.

!WARNING!
Disk boot sector is to be modified
Type "Y" to accept write or "N" to abort write
Award Software, Inc.

Enabled Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.

Disabled No warning message to appear when anything attempt to access the boot sector or hard disk partition table.

CPU Internal Cache/External Cache

These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is Enabled.

Enabled: Enabled cache

Disabled: Disabled cache

Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power on the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

Enabled: Enable quick POST

Disabled: Normal POST

Boot Sequence

This category determines which drive computer searches first for the hard disk operation system (i.e., DOS).

A, C,SCSI: System will first search for floppy disk drive then second search hard disk driver, then SCSI driver.

C,A,SCSI/ D,A,SCSI/ E,A,SCSI/ F,A,SCSI:
System will first search for IDE hard disk driver (C: D: or E: or F:) then second search floppy disk driver then SCSI hard disk driver.

SCSI,A,C: System will first search SCSI hard disk driver then second search for floppy disk driver then IDE hard disk driver.

CDROM,C,A:
System will first search for the CDROM driver (If the CDROM has a bootable CD title.)and second search hard disk driver then floppy disk driver .

C,CDROM,A:
System will first search for the hard disk driver and second search for CDROM driver (If the CDROM has a bootable CD title,) then search floppy disk driver.

LS120,C: System will first search LS120 disk driver and second search for IDE hard disk driver.

Swap Floppy Drive

Users can enable this item so that the BIOS will see the hardware "Drive A:" as "Drive B:", and hardware "Drive B:" as "Drive A:".

Boot Up Floppy Seek

During POST, BIOS will determine if the Floppy disk drive installed is 40 or 80 tracks. 360 K type is 40 tracks while 720K, 1.2M and 1.44M drive type as they are all 80 tracks.

Enabled: BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.

Disabled: BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360K.

Boot Up NumLock Status

The default value is On.

On: Keypad is number keys

Off: Keypad is arrow keys

Boot Up System Speed

It selects the default system speed - the speed that the system will run at immediately after power up.

High: Set the speed to high

Low: Set the speed to low

Gate A20 Option

The Gate A20 Option default setting is fast.". This is the optimum setting for this motherboard.

Typematic Rate Setting

This determines the typematic rate.

Enabled: Enable typematic rate
Disabled: Disable typematic rate

Typematic Rate (Chars/Sec)

6 : 6 characters per second
8 : 8 characters per second
10 : 10 characters per second

12 : 12 characters per second
15 : 15 characters per second
20 : 20 characters per second
24 : 24 characters per second
30 : 30 characters per second

Typematic Delay (Msec)

When holding the a key, the time between the first and second character will be displayed.

250 : 250 msec
500 : 500 msec
750 : 750 msec
1000 : 1000 msec

Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

System: The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.
Setup: The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

Note: *To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press* **<Enter>***, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.*

Video BIOS Shadow

It determines whether video BIOS will be copied to RAM, however, it is optional from chipset design. Video shadow will increase the video speed.

Enabled: Video shadow is enabled

Disabled: Video shadow is disabled

C8000-CBFFF Shadow/DC000-DFFFF Shadow

These categories determine whether optional ROM will be copied to RAM by 16K byte.

Enabled: Optional shadow is enabled

Disabled: Optional shadow is disabled

Chipset Features Setup

ROM PCI/ISA BIOS (2A6LFPN9)
CHIPSET FEATURE SETUP
AWARD AOFTWARE, INC.

Bank 0/1 DRAM Timing	: SDRAM 10ns	Auto Detect DIMM/PCI Clk	: Enabled
Bank 2/3 DRAM Timing	: SDRAM 10ns	Spread Spectrum Modulated	: Disabled
Bank 4/5 DRAM Timing	: SDRAM 10ns		
SDRAM Cycle Length	: 3		
Memory Hole At 15Nb Addr.	: Disabled		
Read Around write	: Disabled		
Concurrent PCI/Host	: Disabled		
Video RAM Cacheable	: Disabled		
AGP Aperture Size	: 64M		
AGP-2X Mode	: Disabled		
		Esc : Quit	↑↓→← : Selection Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift) F2 : Color
		F6 : Load BIOS Default	
		F7 : Load Setup Default	

This setup menu is optimized for this mainboard by your computer vendor. Unless you are a qualified engineer & know the items, functions you are going to modify. We do not recommend you to change the default setting.

Power Management

ROM PCI/ISA BIOS (2A6LFPN9)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI function	: Disabled	Primary INTR	: ON
Power Management	: User Define	IRQ3 (COM 2)	: Primary
PM Control by APM	: Yes	IRQ4 (COM 1)	: Primary
.Video Off Option	: Suspend	IRQ5 (LPT 2)	: Primary
Video Off Method	: V/H SYNC+Blank	IRQ6 (Floppy Disk)	: Primary
MODEM Use IRQ	: 3	IRQ7 (LPT 1)	: Primary
Soft-Off by PWRBTN	: Instant-Off	IRQ8 (RTC Alarm)	: Disabled
HDD Power Down	: Disabled	IRQ9 (IRQ2 Redir)	: Secondary
Doze Mode	: Disabled	IRQ10 (Reserved)	: Secondary
Suspend Mode	: Disabled	IRQ11 (Reserved)	: Secondary
Я Я ЩPM Events Щ Я Я		IRQ12 (PS/2 Mouse)	: Primary
VGA	: OFF	IRQ13 (Coprocessor)	: Primary
LPP & COM	: LPT/COM	IRQ14 (Hard Disk)	: Primary
HDD & FDD	: ON	IRQ15 (Reserved)	: Disabled
DMA/master	: OFF		
Modem Ring Resume	: Disabled	ESC: Quit	↑↓→←: Select Item
RTC Alarm Resume	: Disabled	F1 : Help	PU / PD / + / - : Modify
		F5 : Old Values	(Shift)F2 : Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

This category determines the power consumption for the system after selecting below items. Default value is Disabled. The following pages tell you the options of each item & describe the meanings of each options.

Item	Options	Descriptions
A. Power Management	1. Disable	Global Power Management will be disabled
	2. User Define	Users can configure their own power management
	3. Min Saving	Pre-defined timer values are used such that all timers are in their MAX value
	4. Max Saving	Pre-defined timer values are used such that all timers MIN value

Item	Options	Descriptions
B. PM Control by APM	1. No	System BIOS will ignore APM when power managing the system
	2. Yes	System BIOS will wait for APM' s prompt before it enter any PM mode e.g. DOZE, STANDBY or SUSPEND
	Note: If APM is installed, & if there is a task running, even the timer is time out, the APM will not prompt the BIOS to put the system into any power saving mode!	
	Note: – if APM is not installed, this option has no effect	
	To make the APM function work, users have to install power.exe (supported by MS-DOS 5.0 or higher) in Config.exe. To make the Windows 3.1 work regularly, in " Windows Setup", users have to set the "Computer" item to " MS-DOS System with APM"	
C. Video Off Option	1. Always On	System BIOS will never turn off the screen
	2. Suspend –> Off	Screen off when system is in SUSPEND mode
	3. Susp, Stby – Off	Screen off when system is in STANDBY or SUSPEND mode

	4. All Modes –> Off	Screen off when system is in DOZE, STANDBY or SUSPEND mode
D. Video	1. Blank Screen	The system BIOS will only blanks off the screen when disabling video
	2. V/H SYN C+Blank	In addition to (1), BIOS will also turn off the V-SYNC & H-SYNC signals form VGA cards to monitor

Item	Options	Descriptions
D. Video	3. DPMS	This function is enabled for only the VGA card supporting DPM
E. HDD Power Down (#) Remark 2	1. Disable	HDD' s motor will not off
	2. 1. Min 2. Min 3. Min 4. Min 5. Min 6. Min 7. Min 8. Min 9. Min 10. Min 11. Min 12. Min 13. Min 14. Min 15. Min	Defines the continuous HDD idle time before the HDD entering power saving mode (motor off)
	3. When Suspend	BIOS will turn the HDD' s motor off when system is in SUSPEND mode
	Note: – (2) & (3) can' t be selected at the same time – When HDD is in power saving mode, any access to the HDD will wake the HDD up	

Item	Options	Descriptions
F. Doze Mode (*) Remark 1	2. Disable	System will never enter DOZE mode
	2. 10 Sec 10 Sec 20 Sec 30 Sec 40 Min 1 Min 3 Min 5 Min 10 Min 15 Min 20 Min 30 Min 40 Min 1 Hr 2 Hr 3 Hr	Defines the continuous idle time before the system entering DOZE mode. If any item defined in (J) is enabled & active, DOZE timer will be reloaded.
	Note: Normally, STANDBY mode puts the system into low speed or 8 MHz, screen may be off depend on (E)	
3 Standby Mode (*) Remark 1	1. Disable	System will never enter STANDBY mode
	3. 10 Sec 20 Sec 30 Sec 40 Sec 1 Min 3 Min 5 Min 10 Min 15 Min 20 Min 30 Min 40 Min 1 Hr 2 Hr 3 Hr	Defines the continuous idle time before the system entering STANDBY mode. If any item defined in (J) is enabled & active, STANDBY timer will be reloaded

	Normally, STANDBY mode puts the system into low speed or 8, screen may be off depend on (E)

Item	Options	Descriptions
H. Suspend Mode (*) Remark 1	1. Disable	System will never enter SUSPEND mode
	2. 10 Sec 20 Sec 30 Sec 40 Sec 1 Min 3 Min 5 Min 10 Min 15 Min 20 Min 30 Min 40 Min 1 Hr 2 Hr 3 Hr	Defines the continuous idle time before the system entering SUSPEND mode. if any item defined in (J) is enabled & active, SUSPEND timer will be reloaded
	Note: Normally, SUSPEND mode puts the system into low speed or 8 MHz, clock is stopped, screen may be off depend on (E)	
I. PCI Master Activity COM Ports Activity LPT Ports Activity HDD Ports Activity DMA Ports Activity VGA Activity IRQ3 (COM 2) IRQ4 (COM 1) IRQ5 (LPT 2) IRQ6 (Floppy Disk) IRQ7 (LPT 1) IRQ8 (RTC Alarm) IRQ9 (IRQ2 Redir) IRQ10 (Reserved) IRQ11 (Reserved) IRQ12 (PS/2 Mouse) IRQ13 (Coprocessor)	1. Disable	The specified event' s activity will not affect the PM timers
	2. Enable	The specified event' s activity causes the PM Timers to be reloaded. i.e. the Power ManagementUnit(PMU) monitors the specified activities as PM events

IRQ14 (Hard Disk) IRQ15 (Reserved)		

* Remark 1: All items mark with (*) in this menu, will be loaded with predefined values as long as the item "Power Management" is not configured to "User Defined"

These items are:

Item "System Doze" , "System Standby" & "System Suspend"

Remark 2: Although the item "HDD Power Down" is not controlled by item "Power Management" in terms of timer value, the HDD (s) will not power down if the global power management is disabled!

PNP / PCI Configuration Setup

ROM PCI/ISA BIOS(2A6LFPN9)
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed	: No	CPU to PCI Write Buffer	: Enabled
Resources Contorlled By	: Manual	PCI Dynamic Bursting	: Enabled
Reset Configuration Data	: Disabled	PCI Master 0 WS Write	: Enabled
		PCI Delay Transaction	: Enabled
IRQ-3 assigned to	: PCI/ISA PnP	PCI#2 Access #1 Retry	: Disabled
IRQ-4 assigned to	: PCI/ISA PnP	AGP Master 1 WS Write	: Enabled
IRQ-5 assigned to	: PCI/ISA PnP	AGP Master 1 WS Read	: Disabled
IRQ-7 assigned to	: PCI/ISA PnP		
IRQ-9 assigned to	: PCI/ISA PnP	PCI IRQ Actived By	: Level
IRQ-10 assigned to	: PCI/ISA PnP	Assign IRQ For USB	: Enabled
IRQ-11 assigned to	: PCI/ISA PnP	Assign IRQ For VGA	: Enabled
IRQ-12 assigned to	: PCI/ISA PnP		
IRQ-14 assigned to	: PCI/ISA PnP		
IRQ-15 assigned to	: PCI/ISA PnP		
DMA-0 assigned to	: PCI/ISA PnP		
DMA- 1 assigned to	: PCI/ISA PnP	ESC: Quit	↑↓→←: Select Item
DMA- 3 assigned to	: PCI/ISA PnP	F1 : Help	PU / PD / + / - : Modify
DMA- 5 assigned to	: PCI/ISA PnP	F5 : Old Values	(Shift)F2 : Color
DMA- 6 assigned to	: PCI/ISA PnP	F6 : Load BIOS Defaults	
DMA- 7 assigned to	: PCI/ISA PnP	F7 : Load Setup Defaults	

The following pages tell you the options of each item & describe the meanings of each options.

Item	Options	Descriptions
A. 1st Available IRQ 2nd Available IRQ 3rd Available IRQ 4th Available IRQ	3 4 5 7 9 10 11 12 14 15 NA	The system BIOS will assign these 4 available IRQs to the found PCI devices

Item	Options	Descriptions
B. PCI IDE 2nd Channel	Enable Disable	Enable/disable 2nd channel of PCI/IDE card. It includes I/O port (170H~177H) and IRQ 15 assignment
C. PCI IDE IRQ Map To	PCI-AUTO PCI-SLOT1 PCI-SLOT2 ISA	PCI-AUTO The BIOS will: – scan for PCI IDE devices & determine the location of the PCI IDE device
	PCI-AUTO PCI-SLOT1 PCI-SLOT2 ISA	PCI-SLOT1 PCI-SLOT2 – assign IRQ 14 for primary IDE INT# IRQ 15 for secondary IDE INT# for the specified slot ISA – The BIOS will not assign any IRQs even if PCI IDE card is found! Because some IDE cards connect the IRQ 14 & 15 directly from ISA slot thru a cord. (This cord is called Legacy Header)
F. Primary IDE INT# Secondary IDE INT#	A B	To tell which INT# does the PCI IDE card is using for its interrupts

The other item are optimized by your computer vendor, please do not modify them unless you know its function exactly.

INTEGRATED PERIPHERALS

ROM PC/ISA BIOS(2A6LFPN9)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

OnChip IDE Channe10	: Enabled	RxD , TxD Active	: Hi ,Hi
OnChip IDE Channe11	: Enabled	Onboard Parallel Port	: 378/IRQ7
IDE Prefetch Mode	: Enabled	Onboard Parallel Mode	: ECP/EPP
IDE HDD Block Mode	: Enabled	ELP Mode Use DMA	: 3
Primary Master PIO	: Enabled	Parallel Port EPP Type	: EPP 1.9
Primary Slave PIO	: Auto	Onchip USB	: Disabled
Secondary Master PIO	: Auto		
Secondary Slave PIO	: Auto		
Primary Master UDMA	: Auto		
Primary Slave UDMA	: Auto		
Secondary Master UDMA	: Auto		
Secondary Slave UDMA	: Auto		
Init Display First	: PCI Slot		
Onboard FDD Controller	: Enabled	Esc : Quit	↑↓→← : Selection Item
FDC Write Protect	: Disabled	F1 : Help	PU/PD/+/- : Modify
Onboard Serial Port 2	: 3F8/IRQ4	F5 : Old Values	(Shift) F2 : Color
Onboard Series Ports	: 2F8/IRQ3	F6 : Load BIOS Default	
UART 2 Mode	: Standard	F7 : Load Setup Default	
IR Function Duplex	: Half		

This setup menu is optimized for this motherboard by your computer vendor. Unless you are a qualified engineer & know the items, function you are going to modify. We do not recommend you to change the default setting.

Load BIOS Default

When you access "Load BIOS Default", the following message appears:

Load BIOS Default (Y/N) ?N

The BIOS Default values are the "worst case" default, and are the most stable values for the system. Use them if the system is performing erratically due to hardware problems. To load the BIOS Default values, press <Y> then <Enter>.

Load Setup Default

When you access "Load Setup Default", you are shown the following message:

Load Setup Default (Y/N) ?N

The Setup Default values represent the "best case" default, and should provided optimum system performance. To load the Setup Default values, press <Y> then <Enter>.

Supervisor / User Password Setting

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, and press <Enter>. The password typed now will clear any previously entered 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 and not enter a password.

If you select System at Security Option of BIOS Features Setup Menu, you will be prompted for the password everytime the system is rebooted or anytime you try to enter Setup. If you select Setup at Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

IDE HDD Auto Detection

This feature allows you to check all the informations on your hard disk formation. When you access "IDE HDD Auto Detection", the system executes auto detection.

At the prompt, it represents all the informations on your HDD, and you are asked:

Do you accept this drive C: (Y/N) ?

1 If you accept the test result, press [Y] then [Enter] and the result is saved, then the system continues to detect another HDD.

2 If not, press [N] then [enter] and the system continues to detect another HDD.