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M925 Series, V8.0
P4M266A/September 2003**

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Static Electricity Precautions

Static electricity could damage components on this mainboard. Take the following precautions while unpacking this mainboard and installing it in a system.

1. Don't take this mainboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please wear a grounded wrist strap if possible. If you don't have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Carefully hold this mainboard by its edges. Do not touch those components unless it is absolutely necessary. Put this mainboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this mainboard whether there are any damages to components and connectors on the board.
2. If you suspect this mainboard has been damaged, do not connect power to the system. Contact your mainboard vendor about those damages.

Notice:

1. Owing to Microsoft's certifying schedule is various to every supplier, we might have some drivers not certified yet by Microsoft. Therefore, it might happen under Windows XP that a dialogue box (shown as below) pop out warning you this software has not passed Windows Logo testing to verify its compatibility with Windows XP. Please rest assured that our RD department has already tested and verified these drivers. Just click the "Continue Anyway" button and go ahead the installation.



2. USB 2.0 Driver Limitations:
 - 2-1 The USB 2.0 driver only supports Windows XP and Windows 2000.
 - 2-2 If you connect a USB 2.0 hub to the root hub, plugging USB devices into this hub, the system might not successfully execute certain USB devices' connection because it could not recognize these devices.

Currently, we are working on such limitations' solution. As soon as the solution is done, the updated USB drive will be released to our website: www.pcchips.com.tw for your downloading.

Liste de contrôle

Le coffret de votre carte mère contient les éléments suivants :

- La carte mère
- Le Manuel utilisateur
- Un câble plat pour lecteur de disquette (optionnel)
- Une câble plat pour lecteur IDE
- CD de support de logiciels

Caractéristiques

Processeur	Prise en charge du Processeur Socket-478 <ul style="list-style-type: none">• Supporte le CPU Intel Pentium 4 series• Supporte un Bus Avant allant jusqu'à 400/533 MHz
Chipset	<p>Ce chipset comporte VIA P4M266/A Northbridge et VT8235 Southbridge conformément à une architecture novatrice et dimensionnable avec une fiabilité et des performances prouvées.</p> <ul style="list-style-type: none">• Une architecture de contrôleur de mémoire V-Link avancée offrant la bande passante allant jusqu'à 266 Mo/s et les performances nécessaires même pour les graphiques Internet et 3D les plus exigeants• Support d'une interface 4xAGP offrant des graphiques 3D éclatants, ainsi que d'excellentes performances vidéo• Une interface ATA 133 sur le chipset, aidant à revitaliser les performances du système en offrant une connexion à haute vitesse aux Disques Durs ATA 133, délivrant des vitesses soutenues de transfert de données maximum de 133 Mo/sec <p>Les caractéristiques clé supplémentaires comprennent le support de six ports USB, une liaison AC 97 pour audio et modem, surveillance matérielle, et gestion d'alimentation ACPI/OnNow.</p>
Support de Mémoire	<ul style="list-style-type: none">• La carte mère peut recevoir deux sockets DIMM DDR 2.5V de 184 + deux SDR 3.3V de 168 broches d'une capacité totale de mémoire système de 2 Go.• Supporte le bus mémoire DDR 200/266 MHz
Système Graphique Intégré	<ul style="list-style-type: none">• P4M266/A intègre l'accélérateur graphique S3®'s Savag4™ dans une puce unique. P4M266/A apporte des performances graphiques courantes aux PC de Valeur avec une accélération vidéo 2D, 3D et DVD dans un coffret économique. Basé sur ses capacités, P4M266/A est une solution idéale pour le consommateur, les utilisateurs mobiles d'entreprises et professionnels de niveau d'entrée.• Cette carte mère comprend un slot 4xAGP qui offre quatre fois la bande passante des spécifications AGP d'origine. La technologie AGP offre une connexion directe entre le sous-système graphique et la mémoire de sorte que les graphiques n'ont pas à entrer en concurrence avec d'autres périphériques pour le temps d'utilisation du processeur sur le bus PCI.• Taille maximum de mémoire partagée de 32 Mo.
Audio	<ul style="list-style-type: none">• Conforme aux spécifications AC'97 2.1• CODEC Full-duplex stéréo 16 bits avec vitesse d'échantillonnage de 48KHz fixe• 3 entrées stéréo de niveau de ligne analogique avec contrôle de volume

	<p>5 bits : ENTRÉE LIGNE, ENTRÉE CD, ENTRÉE AUX</p> <ul style="list-style-type: none"> • Trois Prises Audio – Ligne-Sortie, Ligne-Entrée et Entrée Microphone • Compatible Sound Blaster, Sound Blaster Pro • Compatible E/S Numérique avec mode consommateur S/PDIF • Support de gestion d'alimentation avancée
Logements d'Extension	<ul style="list-style-type: none"> • Deux logements PCI 32 bits pour interface • Un logement 4xAGP pour interface • Un logement CNR
IDE Interne	<ul style="list-style-type: none"> • Deux Connecteurs IDE • Prend en Charge les modes PIO (Entrée/Sortie Programmable) et DMA (Accès Direct à la Mémoire) • Supporte maîtrise de bus Ultra DMA IDE avec vitesse de transfert de 33/66/100/133 Mo/sec
Ports E/S Internes	<p>La carte mère possède un jeu complet de ports d'E/S et de connecteurs:</p> <ul style="list-style-type: none"> • Deux ports PS/2 pour souris et clavier • Un port série • Un port parallèle • Un port VGA • Six ports USB2.0 (quatre ports fond de panier, prises USB internes offrant deux ports supplémentaires) • Prises audio pour microphone, ligne d'entrée et ligne de sortie
LAN Ethernet intégré (optionnel)	<ul style="list-style-type: none"> • Solution de Couche Physique 100Base-TX/10Base-T • Double Vitesse – 100/10 Mbps • Interface MII vers Contrôleur Ethernet/Configuration & Etat • Négociation automatique : 10/100, Full/Half Duplex • Conforme à tous les Standards IEEE802.3, 10Base-T et 100Base-TX Applicables
USB 2.0	<ul style="list-style-type: none"> • Conforme aux Spécifications de Bus Série Universel Révision 2.0 • Conforme aux Spécifications d'interface de Contrôleur d'Hôte Amélioré de Intel Révision 0.95 • Conforme aux Spécifications d'Interface de Contrôleur d'Hôte Universel Révision 1.1 • Le périphérique multifonction PCI consiste en deux noyaux de Contrôleur d'Hôtes UHCI pour signalisation pleine/faible vitesse et un noyau de Contrôleur d'Hôtes EHCI pour signalisation haute vitesse • Le hub racine consiste en 4 ports de face en aval avec émetteurs-récepteurs de couche physique intégrés partagés par le Contrôleur d'Hôte UHCI et EHCI • Support des Spécifications d'Interface de Gestion d'Alimentation de Bus PCI version 1.1 • Support hérité pour tous les ports face à l'aval.



Certaines spécifications matérielles et éléments de logiciels peuvent être modifiés sans avertissement .

Checkliste

Die Verpackung Ihres Mainboards enthält folgende Teile:

- Mainboard
- Handbuch
- Bandkabel für Floppylaufwerke (optional)
- Bandkabel für IDE-Laufwerke
- Software-CD

Ausstattung

Prozessor	<p>Unterstütz Socket-478-Prozessoren</p> <ul style="list-style-type: none"> • Unterstützung für Intel Pentium 4-CPU's • Unterstützung von bis zu 533 MHz Front-Side Bus
Chipsatz	<p>Dieser Chipsatz besteht aus einer VIA P4M266/A Northbridge und einer VIA 8235 Southbridge. Die Chipsatzarchitektur ist in einem innovativen und skalierbaren Design gehalten und verspricht sowohl Zuverlässigkeit als auch Leistungsstärke.</p> <ul style="list-style-type: none"> • Moderner V-Link-Speichercontroller-Architektur bietet die nötige Bandbreite bis zu 266 MB/Sek. und Leistung selbst für die anspruchsvollsten Internet- und 3D-Grafiken • Unterstützung für ein 4xAGP-Interface bietet lebendige 3D-Grafiken und Videoperformance • Ein ATA 133-Interface auf dem Chipsatz verbessert die Systemleistung mittels eines Hochgeschwindigkeitsanschlusses für ATA 133-Festplatten mit einer maximalen Sustained Data Transferrate von 133 MB/Sek. <p>Zusätzliche Schlüsseleigenschaften umfassen Unterstützung für sechs USB-Ports, ein AC 97-Link für Audio und Modem, Hardwareüberwachung und ACPI/OnNow-Energieverwaltung.</p>
Speicherunterstützung	<ul style="list-style-type: none"> • Das Mainboard umfaßt zwei 184-polige, 2.5V-DDR-Steckplätze+ zwei 168-polige, 3.3V-SDR-Steckplätze für insgesamt 2 GB Speicher. • Unterstützung für DDR bis zu 200/266MHz Speicherbus
Integriertes Grafiksystem	<ul style="list-style-type: none"> • Das P4M266/A integriert einen S3®'s Savage™ Grafikbeschleuniger in einem einzelnen Chip. P4M266/A bringt Mainstream-Grafikleistung zum Value PC, mit modernster 2D, 3D und DVD –Videobeschleunigung in einem kostengünstigen Paket. Gemessen an seinen Fähigkeiten ist das P4M266/A eine ideale Lösung für den Verbraucher, mobile Firmenanwender und Einganglevel-Profis. • Dieses Board umfaßt einen 4xAGP-Steckplatz mit der vierfachen Bandbreite der ursprünglichen AGP-Spezifikation. AGP-Technologie bietet eine direkte Verbindung zwischen dem Grafiksubsystem und dem Speicher, so dass die Grafiken nicht mit anderen Geräten auf dem PCI-Bus um Prozessorzeit wetteifern müssen. • Die maximal gemeinsam genutzte Speichergröße beträgt 32 MB.
Audio	<ul style="list-style-type: none"> • Entspricht AC'97 2.1 • 16-Bit Stereo Vollduplex-CODEC mit fixierter 48 KHz-Samplingrate • 3 analoge Line-level Stereo-Eingänge mit 5-Bit-Lautstärkenkontrolle: LINE-IN, CD-IN, AUX-IN Drei Audiobuchsen – Line-Out, Line-In and Microphone-In

	<ul style="list-style-type: none"> • Kompatibel mit Sound Blaster und Sound Blaster Pro • Digital I/O kompatibel mit Consumer Mode S/PDIF • Unterstützung für Advanced Power Management
Erweiterungssteckplätze	<ul style="list-style-type: none"> • Zwei 32-Bit PCI-Steckplätze • Ein 4xAGP-Steckplatz • Ein CNR-Steckplatz
Onboard IDE	<ul style="list-style-type: none"> • Zwei IDE-Header • Unterstützt die Modi PIO (Programmable Input/Output) und DMA (Direct Memory Access) • Unterstützung für IDE Ultra DMA-Busmastering mit Transferraten von 33/66/100/133 MB/Sek
Onboard I/O Ports	<p>Das Mainboard verfügt über einen kompletten Satz von I/O-Schnittstellen und Anschlüssen:</p> <ul style="list-style-type: none"> • Zwei PS/2-Steckplätze für Maus und Tastatur yboard • Ein serieller Steckplatz • Ein paralleler Steckplatz • Ein VGA-Steckplatz • Sechs USB2.0-Ports (vier auf der Rückseite, Onboard USB-Header für zwei zusätzliche Ports) • Audioanschlüsse für Mikrofon, line-in und line-out
Fast Ethernet LAN (optional)	<ul style="list-style-type: none"> • 100Base-TX/10Base-T Physical Layer-Lösung • Duale Geschwindigkeit – 100/10 MB/Sek. • MII-Interface für Ethernet Controller/Konfiguration & Status • Auto-Negotiation: 10/100 MB/Sek., Voll/Halfduplex • Entspricht allen anwendbaren Standards: IEEE802.3, 10Base-T und 100Base-TX
USB 2.0	<ul style="list-style-type: none"> • Entspricht Universal Serial Bus-Spezifikation, Revision 2.0 • Entspricht Intels Enhanced Host Controller Interface-Spezifikation, Revision 0.95 • Entspricht Universal Host Controller Interface -Spezifikation Revision 1.1 • PCI-Multifunktionsgerät besteht aus zwei UHCI Host Controller-Kernen für Signalübertragung bei voller und niedriger Geschwindigkeit sowie einem EHCI Host Controller-Kern für Hochgeschwindigkeits-Signalübertragung • Root Hub besteht aus 4 Downstream-Ports mit integrierten Physical Layer-Überträgern für gemeinsame Nutzung durch UHCI und EHCI Host Controller • Unterstützt PCI-Bus Power Management Interface , Spezifikation Release 1.1 • Legacy-Unterstützung für alle Downstream-Ports



Bestimmte Hardwarespezifikationen und Teile der Softwareausstattung können ohne weitere Ankündigung abgeändert werden.

Lista

L'imballo della scheda madre è composto da:

- La scheda madre
- Il manuale
- Una piattina per il collegamento dei drive (opzionale)
- Una piattina IDE
- Il CD con il Software di supporto

Caratteristiche

Processor	Dotata di Socket 478 per Processori <ul style="list-style-type: none">• Supporta CPU Intel Pentium serie 4• Supporta fino a 400/533 MHz Front Side Bus
Chipset	In accordo ad una architettura scabile e innovative sono presenti nel chipset il Northbridge VIA P4M266/A e Southbridge VT8235 . <ul style="list-style-type: none">• Un'avanzata architettura del controller di memoria V-Link che fornisce un'ampiezza di banda fino a 266 MB/s e prestazioni ottimali anche per le più esigenti applicazioni grafiche di Internet e in 3D• Supporto interfaccia AGP 4X per applicazioni grafiche di precisione in 3D e prestazioni video• Un'interfaccia ATA 133 integrata al chipset, che facilita l'avvio del sistema fornendo un collegamento ad alta velocità ai dischi rigidi ATA 133, con velocità massima di trasferimento dati pari a 133 MB/sec <p>Caratteristiche chiave aggiuntive includono supporto per sei porte USB, supporto per collegamento AC 97 per audio e modem, controllo hardware, e gestore d'energia ACPI/OnNow.</p>
Memory Support	<ul style="list-style-type: none">• La scheda madre è dotata di 2 socket DIMM DDR 184 pin, 2.5V + 2 socket DIMM SDR 168 pin, 3.3V per una capacità totale di memoria di sistema pari a 2 GB.• Supporta bus di memoria DDR 200/266MHz
Sistema Grafico Integrato	<ul style="list-style-type: none">• P4M266/A integra l'acceleratore grafico S3®'s Savag4™ in un solo chip. P4M266/A apporta prestazioni grafiche di prima qualità nell'accelerazione 2D, 3D e video DVD. Basata su queste caratteristiche grafiche, la scheda madre P4M266/A è ideale per qualsiasi tipo di utente sia esso un comune utente o un professionista.• Questa scheda madre comprende una slot AGP 4X che fornisce fino a quattro volte l'ampiezza di banda dell'AGP originale. La tecnologia AGP fornisce un collegamento diretto tra il sotto sistema grafico e la memoria in modo che per accedere al processore non ci sia competizione con altri dispositivi sul bus PCI.• La quantità massima di memoria condivisa è di 32 MB.
Audio	<ul style="list-style-type: none">• Conforme con le specifiche AC'97 2.1• CODEC 16 bit stereo full-duplex con campionamento fisso a 48KHz• 3 entrate analogiche con controllo del volume a 5 bit: LINE-IN, CD-IN, AUX-IN• Tre Jack Audio – Line Out, Line In e Microphone-In <p>Compatibile Sound Blaster, Sound Blaster Pro Compatible I/O Digitale compatibile con la modalità consumer S/PDIF</p>

	<ul style="list-style-type: none"> • Supporto per gestione energetica avanzata.
Slot di espansione	<ul style="list-style-type: none"> • Due slot PCI a 32 bit • Una slot AGP 4x • Una slot CNR
Onboard IDE	<ul style="list-style-type: none"> • Due connettori IDE • Supporto della modalità PIO (Programmable Input/Output) e DMA (Direct Memory Access) • Supporto per le modalità Bus Mastering e Ultra DMA ATA 33/66/100/133 MB/sec
Onboard I/O Ports	<p>La scheda madre è dotata da una serie completa di porte e connettori I/O:</p> <ul style="list-style-type: none"> • Due porte PS/2 per tastiera e mouse • Una porta seriale • Una porta VGA • Una porta parallela • Sei porte USB2.0 (quattro porte sul pannello posteriore, terminali USB a bordo che offrono due porte extra) • Jack audio per microfono, ingresso linea e uscita linea
Fast Ethernet LAN (opzionale)	<ul style="list-style-type: none"> • Architettura 100Base TX/10Base T • Doppia velocità – 100/10 Mbps • Interfaccia MII per Controllo Ethernet /Configurazione & Stato • Negoziazione Automatica: 10/100, Full/Half Duplex • Supporto di tutti gli standard esistenti IEEE802.3, 10Base-T e 100Base-TX
USB 2.0	<ul style="list-style-type: none"> • Compliant with Universal Serial Bus Specification Revision 2.0 • Compliant with Intel's Enhanced Host Controller Interface Specification Revision 0.95 • Compliant with Universal Host Controller Interface Specification Revision 1.1 • PCI multi-function device consists of two UHCI Host Controller cores for full-/low-speed signaling and one EHCI Host Controller core for high-speed signaling • Root hub consists 4 downstream facing ports with integrated physical layer transceivers shared by UHCI and EHCI Host Controller • Support PCI-Bus Power Management Interface Specification release 1.1 • Legacy support for all downstream facing ports



Some hardware specifications and software items are subject to change without prior notice.

LISTA DE VERIFICACIÓN

El paquete de su placa principal contiene los sigtes. ítems:

- La placa principal
- El Manual del Usuario
- Un cable cinta para el lector de disquete (optativo)
- Un cable cinta para el lector IDE
- CD de Software de soporte

Características

Procesador	Soporte de Procesador Socket-478 <ul style="list-style-type: none">• Soporta CPU de Intel Pentium 4• Soporta hasta Bus de Lado Frontal de 400/533 MHz
Chipset	Hay VIA P4M266/A Northbridge y VT8235 Southbridge en este chipset en conformidad con una arquitectura innovadora y escalable con fiabilidad y rendimiento comprobados. <ul style="list-style-type: none">• Una arquitectura de controlador de memoria V-Link avanzada que provee la ancha de banda hasta 266 MB/s y rendimiento necesarios para aun las gráficas 3D e Internet exigentes.• Soporta un interfase 4xAGP que provee gráficas 3D vivas y rendimiento de vídeo.• Una interfase ATA 133 en el chipset, que ayuda el rendimiento de sistema boost con proveer una conexión de alta velocidad a las unidades rígidas ATA 133, entrega índices máximos de transferencia de datos sostenidos de 133MB/seg. Las características claves adicionales incluyen soporte para seis puertos USB, un vínculo AC 97 para sonido y modem, monitoreo de hardware, y administración de alimentación ACPI/OnNow.
Soporte de Memoria	<ul style="list-style-type: none">• La placa principal acomoda dos 2.5V DDR de 184 pines + dos 3.3V SDR de 168 pines, enchufes DIMM con una capacidad total de 2GB de memoria de sistema.• Soporta DDR hasta bus de memoria de 200/266MHz
Sistema de Gráficos incorporado	<ul style="list-style-type: none">• P4M266/A integra acelerador de gráficos S3®'s Savag4™ en un solo chip. P4M266/A brinda rendimiento de gráficos mainstream al Value PC con 2D, 3D avanzado y aceleración de vídeo DVD en un paquete eficiente. Basado de sus capacidades, P4M266/A es una solución ideal para el consumidor, los usuarios móviles empresariales y profesionales de nivel básico.• Esta placa principal incluye una ranura 4xAGP que provee cuatro veces la ancha de banda de la especificación AGP original. La tecnología AGP provee una conexión directa entre el subsistema de gráficas y memoria para que las gráficas no tengan que competir por el tiempo de procesador con otros dispositivos en el bus PCI.• Tamaño de memoria compartida es 32 MB.
Audio	<ul style="list-style-type: none">• Conforme con la especificación AC'97 2.1• CODEC de full-duplex de estéreo 16—bit con índice de muestreo en 48KHz fijo• 3 entradas de estéreo a nivel de línea analógica con control de volumen de 5-bit: LINE-IN, CD-IN, AUX-IN

	<ul style="list-style-type: none"> • Tres Enchufes de Audio – Línea de Salida, Línea de Entrada y Entrada de Micrófono • Tarjeta de Sonido, Tarjeta de Sonido Pro Compatible • Entrada/Salida Digital compatible con modo de consumidor S/PDIF • Soporte de administración de energía avanzada
Ranuras de Expansión	<ul style="list-style-type: none"> • Dos ranuras 32-bit PCI • Una ranura 4xAGP • Una ranura CNR
IDE Abordos	<ul style="list-style-type: none"> • Dos conectores IDE • Soporta modos PIO (Entrada/Salida Programable/Programmable Input/Output) y modos DMA (Acceso de Memoria Directo/Direct Memory Access). • Soporta mastering de bus IDE Ultra DMA con índices de transferencia de 33/66/100/133 MB/sec
Puertos I/O Abordos	<p>La placa principal tiene un juego completo de puertos I/O y conectores:</p> <ul style="list-style-type: none"> • Dos puertos PS/2 para ratón y teclado • Un puerto serial • Un puerto paralelo • Un puerto VGA • Seis puertos USB 2.0 (cuatro puertos de panel trasero, cabezales USB abordos que proveen dos puertos extras) • Clavijas de sonido para micrófono, entrada y salida de línea
Ethernet LAN Rápido (optional)	<ul style="list-style-type: none"> • Solución de Capa Física 100Base-TX/10Base-T • Velocidad Dual – 100/10 Mbps • Interfaz MII a Controlador Ethernet/Configuración & Estado • Autonegociación: 10/100, Duplex Completo/Medio • Satisface Todas las Normas Aplicables IEEE802.3, 10Base-T y 100Base-TX
USB 2.0	<ul style="list-style-type: none"> • Conforme con la Especificación de Bus Serial Universal Revisión 2.0 • Conforme con Controlador Anfitrión Reforzado de Intel Interface Specification Revision 0.95 • Conforme con la Especificación de Interfaz de Controlador Anfitrión Universal Revisión 1.1 • Dispositivo PCI multi-función se consiste de dos centros de Controlador Anfitrión UHCI para señalización de velocidad completa/baja y un centro de Controlador Anfitrión EHCI para señalización de alta velocidad • Root hub consiste de 4 puertos que miran hacia abajo con transceptores de capa física integrado compartido por Controlador Anfitrión UHCI y EHCI • Soporta Especificación de Interfaz de Administración de Energía de BUS PCI versión 1.1 • Soporte de legado para todos los puertos que miran hacia abajo



Algunas especificaciones de hardware e ítems de software son sujetos a cambio sin aviso previo .

Lista de verificação

A embalagem da sua placa principal contém os seguintes itens:

- A placa principal
- O Manual do Utilizador
- Um cabo para a unidade de disquetes (opcional)
- Um cabo para a unidade IDE
- CD de suporte para o software

Características

Processador	Suporte do Processador Socket-478 <ul style="list-style-type: none">• Suporta CPU Intel Pentium 4 series• Suporta até 400/533 MHz Front-Side Bus
Chipset	Conta com VIA P4M266/A Northbridge e VT8235 Southbridge neste chipset, de acordo com uma arquitectura inovadora e escalável com um nível de confiança e desempenho comprovado. <ul style="list-style-type: none">• Uma arquitetura de controlador de memória avançado V-Link fornece capacidade de banda até 266 MB/s e performance suficiente para até os mais exigentes gráficos 3D e Internet• Suporta um interface 4xAGP fornecendo gráficos vívidos de 3D e performance de vídeo• Um interface ATA 133 no chipset, que ajuda a ativar a performance do sistema fornecendo uma conexão de alta velocidade para os ATA 133 Hard Disk Drives, atingindo razão de transferência de dados sustentados máximo de 133 MB/seg Características chaves adicionais suportados por seis portos USB, um AC 97 link para áudio e modem, monitoração de hardware, e gerenciamento de força ACPI/OnNow.
Suporte de memória	<ul style="list-style-type: none">• A placa mãe acomoda dois pinos DDR 184, soquetes 2.5V + dois pinos SDR 168, soquetes 3.3V DIMM com uma capacidade total de 2 GB de sistema de memória.• Suporta bus de memória DDR 200/266MHz
Inteligente Gráficos Sistema	<ul style="list-style-type: none">• O P4M266/A integra acelerador de gráfico S3®'s Savag4™ em um único chip. O P4M266/A traz a performance de gráfico principal ao Value PC com liderança do acelerador 2D, 3D e DVD video em um pacote custo efetivo. Baseado nas suas capacidades, o P4M266/A é uma solução ideal para o consumidor, usuário de corporações móveis e novos profissionais.• Um encaixe 4xAGP fornece 4 vezes a banda da especificação original AGP. A tecnologia AGP fornece uma conexão direta entre o sub-sistema do gráfico e memória de modo que os gráficos não venham a competir pelo tempo do processador com outros dispositivos no PCI bus.• O tamanho da memória repartida é de 32 MB.
Audio	<ul style="list-style-type: none">• Compatível com a especificação AC'97 2.1• CODEC de 16 bits em duplex complete stereo com velocidade de mistura de 48KHz• 3 entradas de linha estéreo e analógicas com controlo de volume de 5 bits: LINE-IN, CD-IN, AUX-IN• Três Tomadas de Áudio – Line-Out, Line-In e Microphone-In

	<ul style="list-style-type: none"> • Sound Blaster, Sound Blaster Pro Compatível • Digital I/O compatível com modo consumidor S/PDIF • Suporte de gerenciamento de força avançado
Slots de expansão	<ul style="list-style-type: none"> • Duas slots PCI de 32 bit • Um slot AGP4x • Um slot CNR
IDE na placa	<ul style="list-style-type: none"> • Dois conectores IDE • Suporta modos PIO (Input/Output Programável) e DMA (Direct Memory Access) • Suporta IDE Ultra DMA bus mastering com razão de transferência de 33/66/100/133 MB/sec
Portas I/O na placa	<p>A placa principal possui um conjunto completo de portas e conectores I/O:</p> <ul style="list-style-type: none"> • Duas portas PS/2 para o rato e teclado • Uma porta série • Uma porta paralela • Uma porta VGA • Seis portas USB2.0 (quatro portas traseiras, um conector USB na placa com dois portes extras) • Jacks audio para microfone, line-in e line-out
Fast Ethernet LAN (optional)	<ul style="list-style-type: none"> • 100Base-TX/10Base-T Solução de Camadas Físicas • Velocidade Dupla – 100/10 Mbps • MII Interface para Controlador Ethernet /Configuração & Status • Auto Negociação: 10/100, Full/Half Duplex • Satisfaz todos os Padrões IEEE802.3, 10Base-T e 100Base-TX Aplicáveis
USB 2.0	<ul style="list-style-type: none"> • Compatível com Universal Serial Bus Revisão 2.0 da especificação • Compatível com controlador Enhanced Host da Intel Revisão 0.95 da especificação da interface • Compatível com controlador Universal Host Revisão 1.1 da especificação da Interface • O dispositivo PCI multi-funções consiste em dois núcleos de Controlador UHCI Host Controller para sinalização de velocidade total/baixa em um núcleo de Controlador EHCI Host para sinalização de alta velocidade • O núcleo de raiz consiste em 4 portas de protecção a jusante com transreceptores de camadas físicas integrados partilhados pelos controladores Host UHCI e EHCI • Suporte de gestão de energia PCI-Bus Revisão 1.1 da especificação da interface • Suporte para todas as portas de protecção a jusante



As especificações de alguns artigos de hardware e software encontram-se sujeitos a alterações sem aviso prévio.

检查单

您的主板包装含有以下项目：

- 主板
- 用户手册
- 一根磁盘驱动器扁平电缆（可选）
- 一根 IDE 驱动器扁平电缆
- 软件支持 CD

功能

处理器	支持 Socket-478 处理器 <ul style="list-style-type: none">• 支持 Intel Pentium 4 系列 CPU• 支持 400/533 MHz 前端总线
芯片组	芯片组包含 VIA P4M266/A 北桥 和 VT8235 南桥 ，它基于一种新型的、可扩展的架构，能提供已经证明的可靠性和高性能。 <ul style="list-style-type: none">• 先进的 V-Link 存储控制器架构，能够提供到 266 MB/s 的带宽和性能，甚至能够满足 Internet 和 3D 图形应用的要求• 支持一个 4xAGP 接口，能够提供逼真的 3D 图形和视频性能• 芯片组带一个 ATA 133 接口，通过提供到 ATA 133 硬盘的高速连接明显改善系统性能，最大可提供 133 MB/sec 的稳定数据传输速率 其它主要功能包括支持 6 个 USB 端口 、用于音频和调制解调器的 AC 97 连接 、硬件监测和 ACPI/OnNow 电源管理 。
内存支持	<ul style="list-style-type: none">• 此主板支持 2 条 DDR (184 pin, 2.5V) + 2 条 SDR (168 pin, 3.3V) DIMM 内存，内存最大可支持到 2 GB。• 支持 DDR 200/266MHz 存储总线
内建图形系统	<ul style="list-style-type: none">• P4M266/A 在一个单芯片中集成了 S3®的 Savag4™ 图形加速功能。P4M266/A 通过将先进的 2D、3D 和 DVD 图形加速功能以最佳性价比方式集成到一起，可以为 PC 带来主流的图形性能。P4M266/A 具有的各种超强功能使它成为个人、企业移动用户和入门用户的最佳解决方案。• 包括一个 4xAGP 插槽，可提供普通 AGP 规格 4 倍的带宽。AGP 技术能提供图像子系统和内存之间的直接连接，这样图像就不需要与 PCI 总线上的其它设备争用处理器时间。• 共享内存最大可达 32 MB。
AC97 编解码器	<ul style="list-style-type: none">• 兼容 AC' 97 2.1 规格• 具有 48KHz 固定采样速率的 16 位全双工 CODEC (编解码器)• 3 路带 5 位音量控制的模拟线路电平立体声输入：LINE-IN, CD-IN, AUX-IN• 3 个声音插孔 - 线出、线入和麦克风入• 兼容 Sound Blaster 和 Sound Blaster Pro• 数字量 I/O 兼容消费者模式 S/PDIF• 支持高级电源管理
扩展槽	<ul style="list-style-type: none">• 2 个 32 位 PCI 插槽• 1 个 CNR 槽

	<ul style="list-style-type: none"> • 1 个 4XAGP 插槽
Onboard IDE	<ul style="list-style-type: none"> • 2 个 IDE 接口 • 支持 PIO (程控输入/输出) 和 DMA (直接存储器存取) 模式 • 支持 IDE Ultra DMA 总线控制, 传输速率可达 33/66/100/133 MB/sec
集成 I/O 端口	<p>此主板具有完整的 I/O 端口和插孔</p> <ul style="list-style-type: none"> • 2 个用于鼠标和键盘的 PS/2 端口 • 1 个串口 • 1 个并口 • 1 个 VGA 端口 • 6 个 USB 2.0 端口 (主板后面板带 4 个接口, 板上 USB 接口提供其它 2 个端口) • 麦克风、线入和线出声音插孔
Fast Ethernet LAN (optional)	<ul style="list-style-type: none"> • 100Base-TX/10Base-T 物理层解决方案 • 双速 - 100/10 Mbps • 到以太网控制器的 MII 接口/配置 & 状态 • 自动协商: 10/100, 全双工/半双工 • 符合所有相应的 IEEE 802.3、10Base-T 和 100Base-Tx 标准
USB 2.0	<ul style="list-style-type: none"> • 符合通用串行总线规格 2.0 版本 • 符合 Intel 0.95 版本的增强主控器接口规格 • 符合 1.1 版本的通用主控器接口规格 • PCI 多功能设备由 2 个用于全速/低速传输数据的 UHCI 主控器和 1 个用于高速传输数据的 EHCI 主控器组成 • Root 集线器包括 4 个下行端口, 带有与 UHCI 和 EHCI 主控制器共用的集成物理层收发器。 • 支持 1.1 版本的 PCI 总线电源管理接口规格支持 • 所有传统下行端口



部分硬件规格和软件项目若有更改恕不另行通知。

Chapter 1

Introduction

This mainboard has a **Socket 478** for the **Intel Pentium 4** type of processors supporting front side bus (FSB) speeds up to **400/533 MHz**.

This mainboard has the **VIA P4M266/A** Northbridge and VT8235 Southbridge chipsets that support **AC 97 audio codec**, and provide **Ultra DMA 33/66/100/133** function. It supports built-in **USB 2.0** providing higher bandwidth. It implements **Universal Serial Bus Specification Revision 2.0** and is compliant with **UHCI 1.1** and **EHCI 0.95**. This mainboard has two 32-bit **PCI** slots, one **4xAGP** slot, one **CNR** (Communications and Networking Riser) slot, and an onboard **10BaseT/100BaseTX Network** interface (optional). In addition, this mainboard has a full set of I/O ports including two **PS/2** ports for mouse and keyboard, one serial port, one **VGA** port, one parallel port and six **USB2.0** ports— four back-panel ports and onboard **USB connector USB2** providing two extra ports by connecting the **Extended USB Module** to the mainboard.

This mainboard is a **Micro ATX size** mainboard and has power connectors for an **ATX** power supply.

Key Features

This mainboard has these key features:

Socket 478 Processor

- ◆ The PGA Socket 478
- ◆ Accommodates Intel Pentium 4 CPUs
- ◆ Supports a front-side bus (FSB) of 400/**533** MHz

Chipset

There are VIA P4M266/A Northbridge and VT8235 Southbridge in this chipset in accordance with an innovative and scalable architecture with proven reliability and performance. A few of the chipset's advanced features are:

- ◆ An advanced V-Link memory controller architecture that provides the bandwidth up to 266 MB/s and performance necessary for even the most demanding Internet and 3D graphics
- ◆ Support for an 4xAGP interface providing vivid 3D graphics and video performance
- ◆ An ATA 133 interface on the chipset, which helps boost system performance by providing a high-speed connection to ATA 133 Hard Disk Drives, delivering maximum sustained data transfer rates of 133 MB/sec

Additional key features include support for six USB ports, an AC 97 link for audio and modem, hardware monitoring, and ACPI/OnNow power management.

Memory Support

- ◆ The mainboard accommodates 2 DDR 184 pin, 2.5V + 2 SDR 168 pin, 3.3V DIMM sockets with a total capacity of 2 GB system memory.
- ◆ Supports DDR 200/**266MHz** memory bus

Built-in Graphics System

- ◆ P4M266/A integrates S3®'s Savag4™ graphics accelerator into a single chip. P4M266/A brings mainstream graphics performance to the Value PC with leading-edge 2D, 3D and DVD video acceleration into a cost effective package. Based on its capabilities, P4M266/A is an ideal solution for the consumer, corporate mobile users and entry level professionals.
- ◆ A 4xAGP slot provides four times the bandwidth of the original AGP specification. AGP technology provides a direct connection between the graphics sub-system and memory so that the graphics do not have to compete for processor time with other devices on the PCI bus.
- ◆ Maximum shared memory size is 32 MB.

AC'97 Audio Codec

- ◆ Compliant with AC'97 2.1 specification
- ◆ 16-bit stereo full-duplex CODEC with fixed 48KHz sampling rate
- ◆ 3 analog line-level stereo inputs with 5-bit volume control: LINE-IN, CD-IN, AUX-IN
- ◆ 1 analog line-level mono input: PHONE-IN
- ◆ Three Audio Jacks – Line-Out, Line-In and Microphone-In
- ◆ Sound Blaster, Sound Blaster Pro Compatible
- ◆ Digital I/O compatible with consumer mode S/PDIF
- ◆ Advanced power management support

Expansion Options

The mainboard comes with the following expansion options:

- ◆ Two 32-bit PCI slots
- ◆ One 4xAGP slot
- ◆ One CNR (Communications and Networking Riser) slot

Onboard IDE

- ◆ Two IDE Connectors
- ◆ Supports PIO (Programmable Input/Output) and DMA (Direct Memory Access) modes
- ◆ Supports IDE Ultra DMA bus mastering with transfer rates of 33/66/100/**133** MB/sec

Onboard I/O Ports

The mainboard has a full set of I/O ports and connectors:

- ◆ Two PS/2 ports for mouse and keyboard
- ◆ One serial port
- ◆ One VGA port
- ◆ One parallel port
- ◆ Six USB2.0 ports (four back-panel ports, onboard USB connector providing two extra ports)
- ◆ Audio jacks for microphone, line-in and line-out

BIOS Firmware

This mainboard uses AMI BIOS that enables users to configure many system features including the following:

- ◆ Power management
- ◆ Wake-up alarms
- ◆ CPU parameters and memory timing
- ◆ CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

USB 2.0

- ◆ Compliant with Universal Serial Bus Specification Revision 2.0

- ◆ Compliant with Intel's Enhanced Host Controller Interface Specification Revision 0.95
- ◆ Compliant with Universal Host Controller Interface Specification Revision 1.1
- ◆ PCI multi-function device consists of two **UHCI Host Controller** cores for full-/low-speed signaling and one **EHCI Host Controller** core for high-speed signaling
- ◆ Root hub consists 4 downstream facing ports with integrated physical layer transceivers shared by **UHCI** and **EHCI** Host Controller
- ◆ Support PCI-Bus Power Management Interface Specification release 1.1
- ◆ Legacy support for all downstream facing ports

Built-in Ethernet LAN

- ◆ **100Base-TX/10Base-T Physical Layer Solution**
- ◆ Dual Speed – 100/10 Mbps
- ◆ MII Interface to Ethernet Controller/Configuration & Status
- ◆ Auto Negotiation: 10/100, Full/Half Duplex
- ◆ Meet All Applicable IEEE802.3, 10Base-T and 100Base-TX Standards

Bundled Software

- ◆ **PC-Cillin 2002** provides automatic virus protection under Windows 98/ME/NT/2000/XP
- ◆ **Adobe Acrobat Reader V5.0** is the software to help users read .PDF files.

Dimensions

- ◆ Micro ATX form factor of 244 x 244 mm

Note: Hardware specifications and software items are subject to change without notification.

Package Contents

Your mainboard package contains the following items:

- The mainboard
- The User's Manual
- One diskette drive ribbon cable (optional)
- One IDE drive ribbon cable
- The Software support CD

Optional Accessories

You can purchase the following optional accessories for this mainboard.

- Extended USB module
- CNR v.90 56K Fax/Modem card

Note: You can purchase your own optional accessories from the third party, but please contact your local vendor on any issues of the specification and compatibility.

Chapter 2

Mainboard Installation

To install this mainboard in a system, please follow these instructions in this chapter:

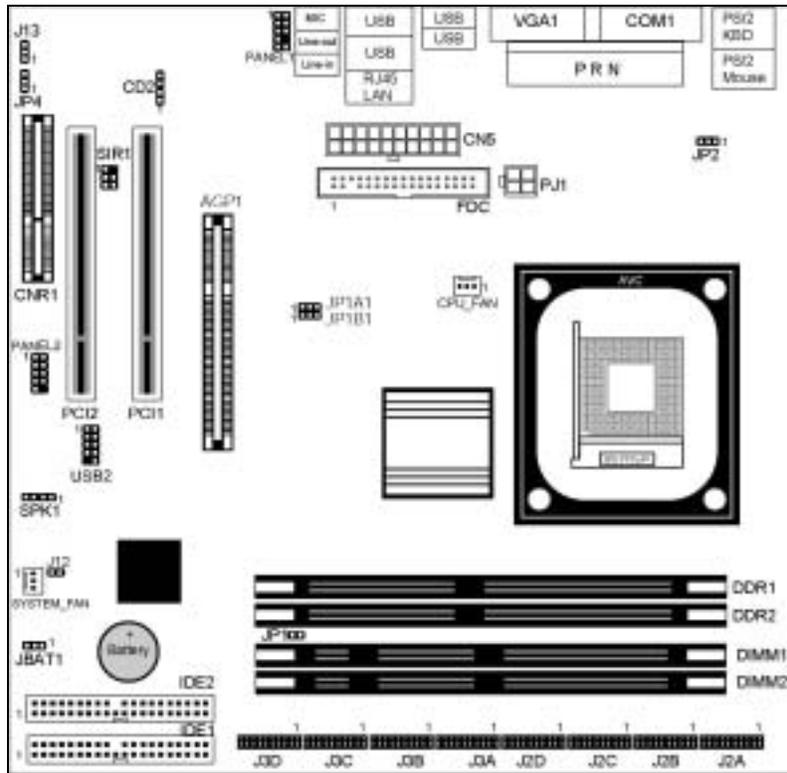
- ❑ Identify the mainboard components
- ❑ Install a CPU
- ❑ Install one or more system memory modules
- ❑ Make sure all jumpers and switches are set correctly
- ❑ Install this mainboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to connectors on the mainboard
- ❑ Install peripheral devices and make the appropriate connections to connectors on the mainboard

Note:

1. Before installing this mainboard, make sure jumper JBAT1 is under Normal setting. See this chapter for information about locating JBAT1 and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the mainboard.

Mainboard Components

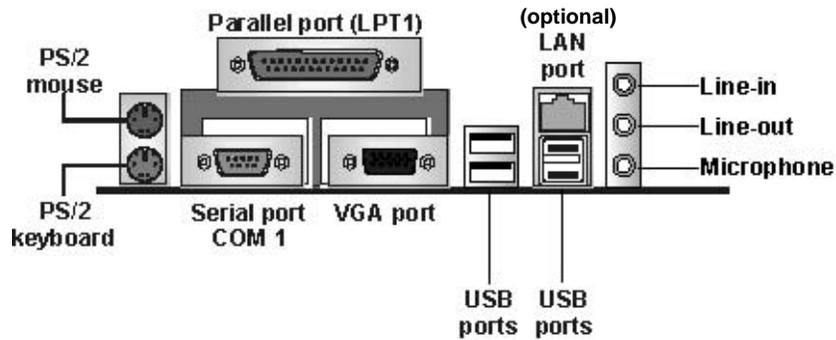
Identify major components on the mainboard via this diagram underneath.



Note: Those jumpers of mainboard not appearing in this illustration are for testing only.

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the mainboard.



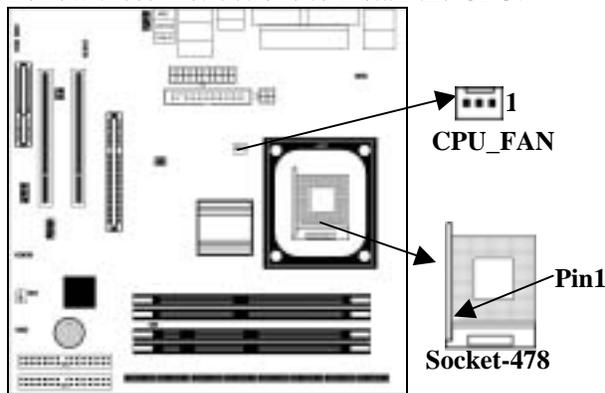
PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
LPT1	Use LPT1 to connect printers or other parallel communications devices.
COM1	Use the COM port to connect serial devices such as mice or fax/modems. COM1 is identified by the system as COM1.
VGA	Use the VGA port to connect VGA devices.
LAN Port (optional)	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB Ports	Use the USB ports to connect USB devices.
Audio Ports	Use the three audio ports to connect audio devices. The first jack is for stereo Line-In signal. The second jack is for stereo Line-Out signal. The third jack is for Microphone.

Installing the Processor

This mainboard has a Socket 478 processor socket. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure

Follow these instructions to install the CPU:



1. Unhook the locking lever of the CPU socket. Pull the locking lever away from the socket and raising it to the upright position.
2. Match the pin1 corner marked as the beveled edge on the CPU with the pin1 corner on the socket. Insert the CPU into the socket. Do not use force.
3. Push the locking lever down and hook it under the latch on the edge of socket.
4. Apply thermal grease to the top of the CPU.
5. Install the cooling fan/heatsink unit onto the CPU, and secure them all onto the socket base.
6. Plug the CPU fan power cable into the CPU fan connector (CPU_FAN) on the mainboard.

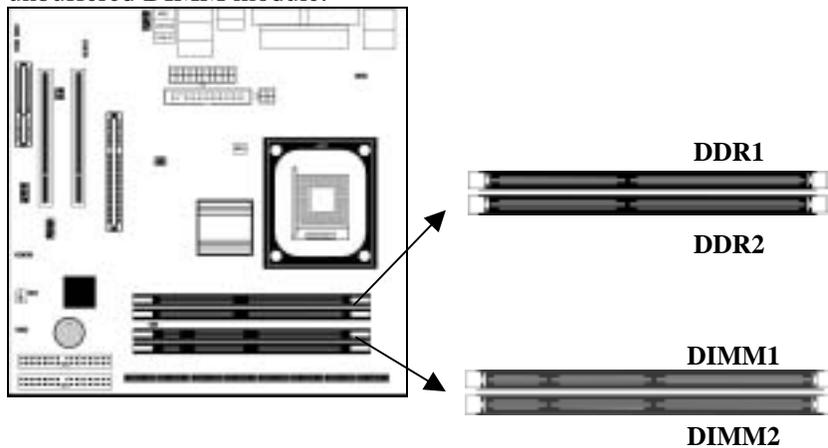
Installing Memory Modules

This mainboard accommodates two 168-pin 3.3V unbuffered Synchronous Dynamic Random Access Memory (SDRAM) and two 184-pin 2.5V unbuffered Double Data Rate SDRAM (DDR SDRAM) Dual Inline Memory Module (DIMM) sockets, supporting 133 MHz SDRAM / 266 MHz DDR SDRAM.

The SDRAM DIMMs and DDRs can synchronously work with 100 MHz or operates over a 266 MHz system bus.

You must install at least one memory module in order to work out this mainboard, **either SDRAM or DDR SDRAM, but you can't use them simultaneously.**

SDRAM provides 800 MB/s or 1 GB/s data transfer rate depending on whether the bus is 100 MHz or 266 MHz. DDR SDRAM doubles the rate to 1.0 GB/s and 2.1 GB/s by transferring data on both the rising and falling edges of the clock. DDR SDRAM uses additional power and ground lines and requires 184-pin 2.5V unbuffered DIMM module.



Installation Procedure

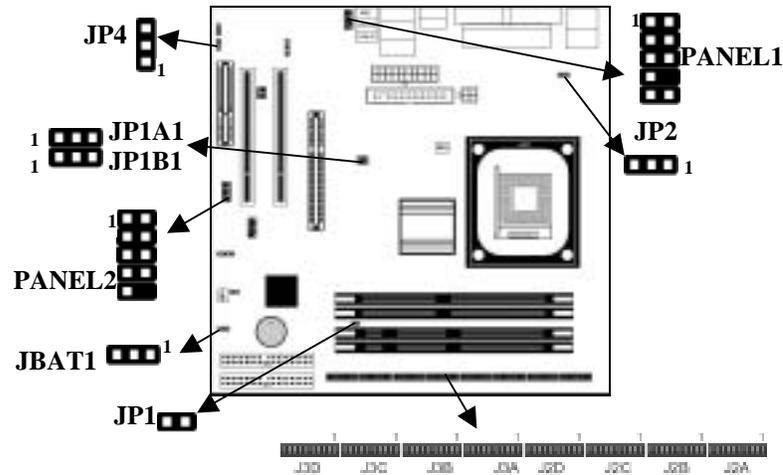
The mainboard accommodates two types of memory modules. You must install at least one module in any of these sockets. You can install each module up to 2GB system memory.

Refer to the following to install the memory modules.

1. Push down the latches on both sides of the DIMM socket.
2. Align the memory module with the socket. There is a notch on the DIMM socket that you can install the DIMM module in the correct direction. Match the cutout on the DIMM module with the notch on the DIMM socket.
3. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.
4. Install any remaining DIMM modules.

Jumper Settings

Using a jumper cap to connect two pins is **SHORT**, removing it from these pins, **OPEN**.



JBAT1: Clear CMOS Jumper

This jumper is to clear the contents of CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect that prevents your mainboard from operating. To clear the CMOS memory, disconnect all the power cables from the mainboard and then move the jumper cap into the CLEAR setting for a few seconds.

Function	Jumper Setting
Normal	Short Pins 1-2
Clear CMOS	Short Pins 2-3

JP1A1, JP1B1: CPU Clock

This jumper enables to select CPU frequency.

CPU Clock	JP1A1	JP1B1
100M	Short Pins 1-2	Short Pins 2-3
133M	Short Pins 1-2	Short Pins 1-2

JP1: DRAM Voltage (VCC)

This jumper enables to select voltage of DRAM.

Function	Jumper Setting
2.5V (DDR)	Open Pins 1-2
3V (SDR)	Short Pins 1-2

J2A/B/C/D, J3A/B/C/D: DDR/SDR DRAM Type Selector

This jumper enables to select the type of DDR or SDR DRAM.

Function	Jumper Setting
DDR1,DDR2	Short all J2A/B/C/D and J3A/B/C/D pins
DIMM1, DIMM2	Open all J2A/B/C/D and J3A/B/C/D pins

JP2: Keyboard Power On

This jumper enables any keyboard activity to power up a system previously in a standby or sleep state.

Function	Jumper Setting
5V	Short Pins 1-2
5VSB	Short Pins 2-3

J13: Flash ROM Voltage (VCC)

This jumper enables to select voltage of flash ROM.

Function	Jumper Setting
5V	Short Pins 1-2
3V	Short Pins 2-3

JP4: Flash ROM Size

This jumper enables to select size of flash ROM.

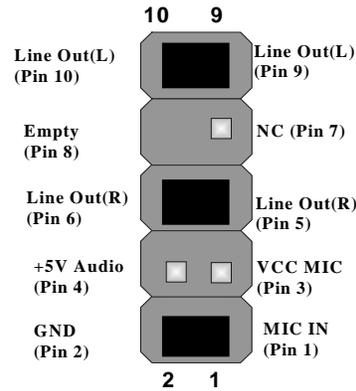
Function	Jumper Setting
2M	Short Pins 1-2
4M	Short Pins 2-3

The Panel Connectors

PANEL1

If there are a headphone jack or/and a microphone jack on the front panel, connect the cables to the PANEL1 on the mainboard.

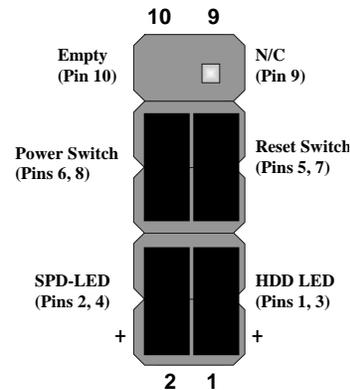
Device	Pins
Line Out (L)	9, 10
Empty	8
NC	7
Line Out (R)	5, 6
+5V Audio	4
VCCMIC	3
GND	2
MIC IN	1



PANEL2

This panel connector provides a set of switch and LED connectors found on ATX case. Refer to the table below for information.

Device	Pins
Empty	10
N/C	9
Power ON/OFF	6, 8
Reset Switch	5, 7
SPD-LED Indicator	+2, 4
HDD LED	+1, -3



Other Devices Installation

Floppy Diskette Drive Installation

The mainboard has a floppy diskette drive (FDD) interface and ships with a diskette drive ribbon cable that supports one or two floppy diskette drives. You can install a 5.25-inch drive and a 3.5-inch drive with various capacities. The floppy diskette drive cable has one type of connector for a 5.25-inch drive and another type of connector for a 3.5-inch drive.

IDE Devices

Your mainboard has a primary and secondary IDE channel interface (IDE1 and IDE2). An IDE ribbon cable supporting two IDE devices is bundled with the mainboard.

If you want to install more than two IDE devices, get a second IDE cable and you can add two more devices to the secondary IDE channel.

IDE devices have jumpers or switches to set the IDE device as MASTER or SLAVE. When installing two IDE devices on one cable, ensure that one device is set to MASTER and the other one to SLAVE.

This mainboard supports Ultra DMA 66/100/133. UDMA is a technology to accelerate devices' performance in the IDE channel. To maximize performance, install IDE devices that support UDMA and use 80-pin IDE cables supporting UDMA 66/100/133.

Expansion Slots Installation

This mainboard has one 4xAGP, one CNR and two 32-bit PCI (Peripheral Components Interconnect) expansion slots.

4 x AGP (Accelerated Graphics Port) Slot

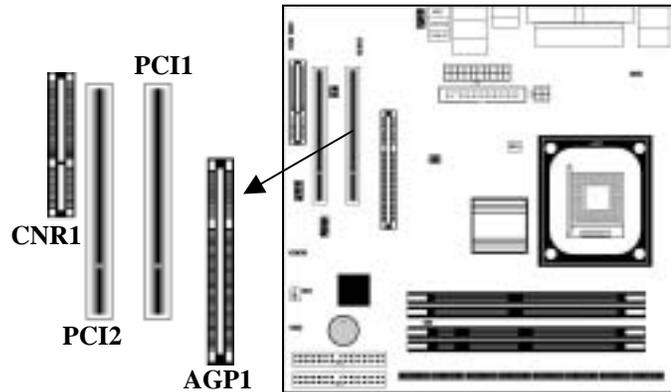
You can install a graphics adapter supporting 4xAGP specification in the AGP slot. This slot has one 4xAGP edge connector.

CNR (Communications Networking Riser) Slot

You can install a CNR (the Communications Networking Riser) card in the CNR slot.

PCI (Peripheral Components Interconnect) Slot

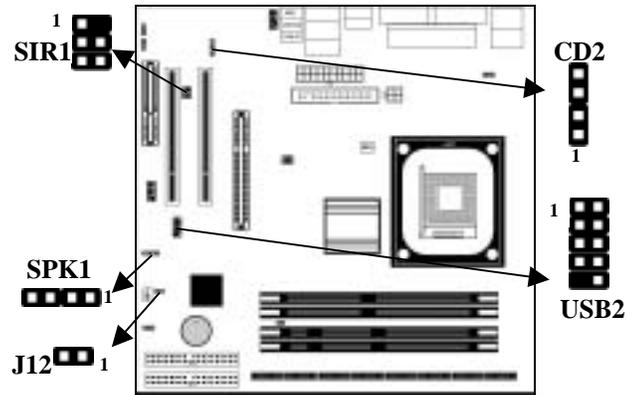
You can install the 32-bit PCI interface expansion cards in the slots.



1. Remove a blanking plate from the system case corresponding to the slot you are going to use.
2. Install the edge connector of the expansion card into the expansion slot. Ensure that the edge connector is correctly seated in the slot.
3. Secure the metal bracket of the card to the system case with a screw.

Connecting Optional Devices

Refer to the following for information on connecting the mainboard's optional devices:



J12: Sleep Switch

This header is connected to the sleep button for suspending the computer's activity if pushing the button. Or, the computer is automatically suspended after passing a period of time.

Pin	Signal
1	-EXTSMI
2	GND

SPK1: Speaker Connector

Connect the cable from the PC speaker to the SPK1 header on the mainboard.

Pin	Signal	Pin	Signal
1	SPKR	2	NC
3	GND	4	+5V

USB2: Front panel USB Connector

The mainboard has USB ports installed on the rear edge I/O port array. Some computer cases have a special module that mounts USB ports at the front of the case. If you have this kind of case, use auxiliary USB connectors USB2 to connect the front-mounted ports to the mainboard.

Pin	Signal	Pin	Signal
1	VERG_FP_USBPWR0	2	VERG_FP_USBPWR0
3	USB_FP_P0-	4	USB_FP_P1-
5	USB_FP_P0+	6	USB_FP_P1+
7	GROUND	8	GROUND
9	KEY	10	USB_FP_OC0

CD2:CD-ROM/DVD Audio Input Connector

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system. On the mainboard, locate the 4-pin connector **CD2**.

CD2

Pin	Signal
1	CD IN L
2	GND
3	GND
4	CD IN R

SIR1: Serial infrared port

The mainboard supports a Serial Infrared (SIR1) data port. Infrared ports allow the wireless exchange of information between your computer and similarly equipped devices such as printers, laptops, Personal Digital Assistants (PDAs), and other computers.

Pin	Signal	Pin	Signal
1	NC	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

Chapter 3

BIOS Setup Utility

Introduction

The BIOS Setup Utility records settings and information of your computer, such as date and time, the type of hardware installed, and various configuration settings. Your computer applies those information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information; or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the mainboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to “Hit if you want to run SETUP”. Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor.

AMIBIOS SIMPLE SETUP UTILITY – VERSION 1.21.12
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Standard CMOS Setup	Features Setup
Advanced Setup	CPU PnP Setup
Power Management Setup	Hardware Monitor
PCI / Plug and Play Setup	Change Password
Load Optimal Settings	Exit
Load Best Performance Settings	
Esc : Quit ↑ ↓ ← →: Select Item (Shift)F2 : Change Color F5 : Old Values F6 : Optimal values F7 : Best performance values F10 : Save&Exit	
Standards CMOS setup for changing time, date, hard disk type, etc.	

You can use cursor arrow keys to highlight anyone of options on the main menu page. Press **Enter** to select the highlighted option. Press the **Escape** key to leave the setup utility. Hold down the **Shift** key and press **F2** to cycle through the Setup Utility’s optional color schemes.

Some options on the main menu page lead to tables of items with installed values that you can use cursor arrow keys to highlight one item, and press **PgUp** and **PgDn** keys to cycle through alternative values of that item. The other options on the main menu page lead to dialog boxes requiring your answer Yes or No by hitting the **Y** or **N** keys.

If you have already changed the setup utility, press **F10** to save those changes and exit the utility. Press **F5** to reset the changes to the original values. Press **F6** to install the setup utility with a set of default values. Press **F7** to install the setup utility with a set of high-performance values.

Standard CMOS Setup Page

This page helps you set up basic information such as the date and time, the IDE devices, and the diskette drives.

AMIBIOS SETUP - STANDARD CMOS SETUP										
(C) 2000 American Megatrends, Inc. All Rights Reserved										
Date (mm/dd/yy) : Wed Sep 17, 2003										
Time (hh/mm/ss) : 11:19:55										
	Type	Size	Cyln	Head	WPcom	Sec	LBA Mode	Blk Mode	PIO Mode	32Bit Mode
Pri Master	: Auto									On
Pri Slave	: Auto									On
Sec Master	: Auto									On
Sec Slave	: Auto									On
Floppy Drive A : 1.44 MB 31/2										
Floppy Drive B : Not Installed										
Month : Jan - Dec							ESC : Exit			
Day : 01 - 31							↑↓ : Select Item			
Year : 1901 - 2099							PU/PD/+/- : Modify			
							(Shift)F2 : Color			
							F3 : Detect All HDD			

Date & Time	Use these items to set up system date and time
IDE Pri Master Pri Slave Sec Master Sec Slave	Use these items to configure devices connected to the Primary and Secondary IDE channels. To configure an IDE hard disk drive, choose <i>Auto</i> . If the <i>Auto</i> setting fails to find a hard disk drive, set it to <i>User</i> , and then fill in the hard disk characteristics (Size, Cyls, etc.) manually. If you have a CD-ROM drive, select the setting <i>CDROM</i> . If you have an ATAPI device with removable media (e.g. a ZIP drive or an LS-120), select <i>Floptical</i> .
Floppy Drive A Floppy Drive B	Use these items to set up size and capacity of the floppy diskette drive(s) installed in the system.

Advanced Setup Page

This page sets up more advanced information about your system. Be more careful to this page. Any changes can affect the operation of your computer.

AMIBIOS SETUP – ADVANCED SETUP			
(C) 2000 American Megatrends, Inc. All Rights Reserved			
Quick Boot	Enabled	AGP Aperture Size	64MB
1 st Boot Device	IDE-0	Auto detect DIMM/PCI Clk	Enabled
2 nd Boot Device	Floppy	CLK Gen Spread Spectrum	Disabled
3 rd Boot Device	CDROM	Hyper Threading Function	Disabled
Try Other Boot Devices	Yes		
S.M.A.R.T. for Hard Disks	Disabled		
BootUp Num-Lock	On		
Floppy Drive Swap	Disabled		
Floppy Drive Seek	Disabled		
Password Check	Setup		
Boot To OS/2	No		
L2 Cache	Enabled		
System BIOS Cacheable	Enabled		
DRAM Timing by SPD	Disables	ESC : Quit	↑↓←→ : Select Item
DRAM Frequency	133MHz	F1 : Help	PU/PD/+/- : Modify
DRAM CAS# Latency	2.5	F5 : Old Values (Shift)	F2 : Color
DRAM Bank Interleave	Disabled	F6 : Load BIOS Defaults	
AGP Mode	4X	F7 : Load Setup Defaults	
AGP Comp. Driving	Auto		
Manual AGP Comp. Driving	CB		

Quick Boot	If you enable this item, the system starts up more quickly by elimination of some of the power on test routines.
1st Boot Device	Use these items to determine the device order the computer uses to look for an operating system to load at start-up time.
2nd Boot Device	
3rd Boot Device	
Try Other Boot Device	If you enable this item, the system will also search for other boot devices if it fails to find an operating system from the first two locations.
S.M.A.R.T. for Hard Disks	Enable this item if any IDE hard disks support the S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) feature.

BootUp Num-Lock	This item determines if the Num Lock key is active or inactive at system start-up time.
Floppy Drive Swap	If you have two diskette drives installed and you enable this item, drive A becomes drive B and drive B becomes drive A.
Floppy Drive Seek	If you enable this item, your system will check all floppy disk drives at start up. Disable this item unless you are using an old 360KB drive.
Password Check	If you have entered a password for the system, use this item to determine, if the password is required to enter the Setup Utility (<i>Setup</i>) or required both at start-up and to enter the Setup Utility (<i>Always</i>).
Boot to OS/2 > 64MB	Enable this item if you are booting the OS/2 operating system and you have more than 64MB of system memory installed.
L2 Cache	Leave these items enabled since all the processors that can be installed on this board have internal L2 cache memory.
System BIOS Cacheable	If you enable this item, a segment of the system BIOS will be copied to main memory for faster execution.
DRAM Timing By SPD	This item allows you to enable or disable the DRAM timing defined by the Serial Presence Detect electrical.
DRAM Frequency	This item determines frequency of DRAM memory.
DRAM CAS# Latency	This item determines the operation of DRAM memory CAS (column address strobe). It is recommended that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.

DRAM Bank Interleave	Enable this item to increase DRAM memory speed. When enabled, separate memory banks are set for odd and even addresses and the next byte of memory can be accessed while the current byte is being refreshed.
AGP Comp. Driving	Use this item to signal driving current on AGP cards to auto or manual. Some AGP cards need stronger than normal driving current in order to operate. We recommend that you set this item to the default.
Manual AGP Comp. Driving	When AGP Driving is set to Manual, use this item to set the AGP current driving value.
AGP Mode	This item provides the OnBoard VGA mode with three options of 1,2, 4 multiplied frequency.
AGP Aperture Size	This item defines an AGP for the graphics. Leave this item at the default value 64MB.
Auto detect DIMM/PCI Clock	When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.
CLK GEN Spread Spectrum	Use this item to set the system bus spread spectrum for the installed processor.
Hyper Threading Function	If your P4 CPU is not HT CPU, this item will be hidden. If your P4 CPU is HT CPU, BIOS will show this item. You can set "Disabled" or "Enabled" to control HT CPU support in O.S. Set "Enabled" to test HT CPU function.

Power Management Setup Page

This page sets up some parameters of system power management operation.

AMIBIOS SETUP – POWER MANAGEMENT SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
ACPI Aware O/S	Yes	
Power Management	Enabled	
Suspend Time Out <Min.>	Disabled	
Resume On RTC Alarm	Disabled	
RTC Alarm Date	15	
RTC Alarm Hour	12	
RTC Alarm Minute	30	
RTC Alarm Second	30	
LAN/Ring Power On	Disabled	ESC : Quit ↑↓←→ : Select Item
Keyboard Power On	Disabled	F1 : Help PU/PD/+/- : Modify
Wake-Up Key	Any key	F5 : Old Values (Shift)F2 : Color
Wake-Up Password	N/A	F6 : Load BIOS Defaults
		F7 : Load Setup Defaults

ACPI Aware O/S This item supports ACPI (Advanced Configuration and Power management Interface). Use this item to enable or disable the ACPI feature.

Power Management Use this item to enable or disable a power management scheme. If you enable power management, you can use the items below to set the power management operation. Both APM and ACPI are supported.

Suspend Time Out This sets the timeout for Suspend mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Suspend mode.

Resume On RTC Alarm / Date / Hour / Minute / Second	The system can be turned off with a software command. If you enable this item, the system can automatically resume at a fixed time based on the system's RTC (realtime clock). Use the items below this one to set the date and time of the wake-up alarm. You must use an ATX power supply in order to use this feature.
LAN/Ring Power On	The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the Modem. You must use an ATX power supply in order to use this feature.
Keyboard Power On Wake-Up Key Wake-Up Password	If you enable this item, system can automatically resume by pressing hot keys on the keyboard or typing in the password. You must enable the Keyboard Power On jumper and use an ATX power supply in order to use this feature.

PCI / Plug and Play Setup Page

This page sets up some parameters for devices installed on the PCI bus and those utilizing the system plug and play capability.

AMIBIOS SETUP - PCI / PLUG AND PLAY SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
Plug and Play Aware O/S	Yes	ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults
Share Memory Size	32MB	
Primary Graphics Adapter	PCI	
Allocate IRQ for PCI VGA	Yes	
PCI IDE BusMaster	Disabled	

Plug and Play Aware O/S	Enable this item if you are using an O/S that supports Plug and Play such as Windows 95 or 98.
Share Memory Size	This item lets you allocate a portion of the main memory for the onboard VGA display application with three options of 8/16/32MB.
Primary Graphics Adapter	This item indicates if the primary graphics adapter uses the PCI or the AGP bus. The default AGP setting still lets the onboard display work and allows the use of a second display card installed in an AGP slot.
Allocate IRQ for PCI VGA	If this item is enabled, an IRQ will be assigned to the PCI VGA graphics system. You set this value to No to free up an IRQ.
PCI IDE BusMaster	This item enables or disables the DMA under DOS mode. We recommend you to leave this item at the default value.

Load Optimal Settings

If you select this item and press **Enter** a dialog box appears. If you press **Y**, and then **Enter**, the Setup Utility loads a set of fail-safe default values. These default values are not very demanding and they should allow your system to function with most kinds of hardware and memory chips.

Note: It is highly recommended that users enter this option to load optimal values for accessing the best performance.

Load Best Performance Settings

If you select this item and press **Enter** a dialog box appears. If you press **Y**, and then **Enter**, the Setup Utility loads a set of best-performance default values. These default values are quite demanding and your system might not function properly if you are using slower memory chips or other low-performance components.

Features Setup Page

This page sets up some parameters for those peripheral devices connected to the system.

AMBIOS SETUP - FEATURES SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
OnBoard FDC	Enabled	
OnBoard Serial PortA	3F8h/COM1	
OnBoard IR Port	Disabled	
OnBoard Parallel Port	378h	
Parallel Port Mode	SPP	
Parallel Port IRQ	7	
Parallel Port DMA	N/A	
OnBoard Game Port	201h	ESC : Quit ↑↓←→ : Select Item
OnBoard MIDI Port	300h	
MIDI Port IRQ	10	
OnBoard IDE	Both	F1 : Help PU/PD/+/- : Modify
Audio Device	Enabled	F5 : Old Values (Shift)F2 : Color
Modem Device	Auto	F6 : Load BIOS Defaults
Ethernet Device	Enabled	F7 : Load Setup Defaults
USB Controller	Enabled	
USB Device Legacy Support	Disabled	
ThumbDrive Support for DOS	Disabled	

OnBoard FDC	Use this item to enable or disable the onboard floppy disk drive interface.
OnBoard Serial PortA	Use this item to enable or disable the onboard COM1 serial port, and to assign a port address.
OnBoard IR Port	Use this item to enable or disable the onboard infrared port, and to assign a port address.
Parallel Port Mode	Use this item to set the parallel port mode. You can select SPP (Standard Parallel Port), ECP (Extended Capabilities Port), EPP (Enhanced Parallel Port), or ECP + EPP.
Parallel Port IRQ	Use this item to assign IRQ to the parallel port.
Parallel Port DMA	Use this item to assign a DMA channel to the parallel port.
OnBoard Game Port	This item enables or disables the I/O address for the game port.
OnBoard MIDI Port	Use this item to enable or disable the onboard MIDI port, and to assign a port address.
MIDI Port IRQ	Use this item to assign IRQ 7 to the parallel port.
OnBoard IDE	Use this item to enable or disable the onboard IDE channel.
Audio Device	This item enables or disables the AC'97 audio chip.
Modem Device	This item enables or disables the MC'97 modem chip.
Ethernet Device	This item enables or disables the onboard Ethernet LAN.
USB Controller	Use this item to select the USB ports or disabled.

USB Device Legacy Support	This item allows you to enable the USB device, if you have installed a USB device on the system board.
ThumbDrive Support For DOS	Enable this item to make a small portion of memory storage device for the USB ports.

CPU PnP Setup Page

This page helps you manually configure the mainboard for the CPU. The system will automatically detect the type of installed CPU and make the appropriate adjustments to the items on this page.

AMIBIOS SETUP – CPU PnP SETUP	
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CPU BRAND	INTEL
CPU Type	Pentium 4
CPU Ratio	8.0x
CPU Frequency	100 MHz
ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift) F2 : Color F6 : Load Optimal values F7 : Load Best performance values	

CPU BRAND/Type/Core Voltage/Ratio/Frequency	These items show the type, core voltage, ratio and frequency of CPU installed in your system.
--	---

Hardware Monitor Page

This page sets up some parameters for the hardware monitoring function of this mainboard.

AMBIOS SETUP – HARDWARE MONITOR (C) 2000 American Megatrends, Inc. All Rights Reserved		
*** System Hardware ***		
Vcore	1.632V	
Vcc 2.5V	2.496V	
Vcc 3.3V	3.392V	
Vcc 5V	4.945V	
+12V	12.032V	
-12V	-11.968V	ESC : Quit ↑↓←→ : Select Item
SB5V	5.026V	F1 : Help PU/PD/+/- : Modify
VBAT	3.488V	F5 : Old Values (Shift)F2 : Color
SYSTEM Fan Speed	0 RPM	F6 : Load BIOS Defaults
CPU Fan Speed	1308 RPM	F7 : Load Setup Defaults
Power Temperature	33°C/91°F	
SYSTEM Temperature	39°C/102°F	
CPU Temperature	62°C/143°F	

CPU / System Temperature	These items display CPU and system temperature measurement.
FANs & Voltage Measurements	These items indicate cooling fan speeds in RPM and the various system voltage measurements.

Change Password

If you highlight this item and press Enter, a dialog box appears that you can enter a Supervisor password. You can enter no more than six letters or numbers. Press Enter after you have typed in the password. There will be the second dialog box asking you to retype the password for confirmation. Press Enter after you have retyped it correctly. Then, the password is required for the access to the Setup Utility or for it at start-up, depending on the setting of the Password Check item in Advanced Setup.

Exit

Highlight this item and press Enter to save the changes that you have made in the Setup Utility configuration and exit the program. When the Save and Exit dialog box appears, press Y to save and exit, or press N to exit without saving.

Chapter 4

Software & Applications

Introduction

This chapter describes the contents of the support CD-ROM that comes with the mainboard package.

The support CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support CD, simply insert the CD into your CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows 98/ME/2000/XP, it will automatically install all the drivers and utilities for your mainboard; if Windows NT or manual installation, please follow the instructions described as the Installing under Windows NT or Manual Installation section.

Installing Support Software

1. Insert the support CD-ROM disc in the CD-ROM drive.
2. When you insert the CD-ROM disc in the system CD-ROM drive, the CD automatically displays an Auto Setup screen.
3. The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Setup**, **Application** and **ReadMe** at the bottom. Please see the following illustration.



The **Setup** button runs the software auto-installing program as explained in next section.

The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows 98 file browsing interface.

The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive; or click the CD-ROM driver from the Windows Explorer, and click the Setup icon.

The **Application** button brings up a software menu. It shows the bundled software that this mainboard supports.

The **ReadMe** brings you to the Install Path where you can find out path names of software driver.

Auto-Installing under Windows 98/ME/2000/XP

If you are under Windows 98/ME/2000/XP, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support CD-ROM:

1. The installation program loads and displays the following screen. Click the **Next** button.



2. Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.



3. The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Installing under Windows NT or Manual Installation

If you are under Windows NT, the auto-installing program doesn't work out; or you have to do the manual installation, please follow this procedure while the Auto Setup screen pops out after inserting the support CD-ROM:

1. Click the **ReadMe** to bring up a screen, and then click the Install Path at the bottom of the screen.
2. Find out your mainboard model name and click on it to obtain its correct driver directory.
3. Install each software in accordance with the corresponding driver path.

Bundled Software Installation

All bundled software available on the CD-ROM is for users' convenience. You can install bundled software as follows:

1. Click the **Application** button while the Auto Setup screen pops out after inserting the support CD-ROM.
2. A software menu appears. Click the software you want to install.
3. Follow onscreen instructions to install the software program step by step until finished.