

Preface

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Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that

interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Canadian Department of Communications

This class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

About the Manual

The manual consists of the following:

Chapter 1 Introduction of This Motherboard	Describes features of the motherboard, and provides a shipping checklist. Go to ⇒ page 1
Chapter 2 Installing this Motherboard	Describes installation of motherboard components. Go to ⇒ page 6
Chapter 3 Using BIOS	Provides information on using the BIOS Setup Utility. Go to ⇒ page 17
Chapter 4 Using the Motherboard Software	Describes the motherboard software. Go to ⇒ page 30

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Features Translations

Caractéristiques

Processeur	<ul style="list-style-type: none"> • Prise en charge du Processeur Socket-462 • Supporte le CPU AMD Athlon XP/Athlon/Duron • Supporte un Bus Avant allant jusqu'à 333/266/200 MHz
Chipset	<p>Ce chipset comporte VIA KM266Pro 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"> • Interface de CPU de Hautes Performances: Prend en charge les processeurs AMD Athlon / Duron Socket-A (Socket-462), adresse d'hôte et vitesse de transfert de données 333/266/200 MHz; Tampons d'écriture CPU sur DRAM intégrés et tampons de lecture anticipée de CPU sur DRAM • Contrôleur de Port Graphique Accéléré (AGP) Complet: AGP v2.0 conforme au mode mode de transfert 4x avec prise en charge de Fast Write; Transferts longue-rafales à transaction fractionnée en pipeline jusqu'à 1Go/sec • Contrôleur SDRAM DDR 64 bits de Haute Performance: Prend en charge les types de mémoire DDR333/266 avec interface DRAM 2.5V SSTL-2 • Contrôleur de Bus PCI concurrent: Interface PCI 3.3V 32 bits Conforme PCI 2.2, fonctionnant en 33 MHz avec entrées à tolérance de 5V. • Contrôleur Fast Ethernet: Fonctionnement full et half duplex en 1/10/100 MHz • Contrôleur EIDE de mode maître UltraDMA-133/100/66/33 : Vitesse de transfert jusqu'à 133Mo/sec pour couvrir les lecteurs PIO mode 4, multi-mots DMA mode 2, et interface UltraDMA-133 • Contrôleur Audio Numérique Direct Sound Ready AC'97: Conforme AC'97 2.1 • Contrôleur de bus USB: Compatible USB v2.0 et Interface de Contrôleur d'Hôte Avancé (EHCI) v1.0; compatible USB v1.1 et Interface de Contrôleur d'Hôte Universel (UHCI) v1.1
Support de Mémoire	<ul style="list-style-type: none"> • Deux logements DIMM DDR 184 broches pour modules mémoire • Supporte le bus mémoire DDR333/266 • La mémoire maximum installée est 2Go
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 133/100/66/33 Mo/sec

VGA	<ul style="list-style-type: none"> • Prend en charge les tailles de Tampons de Trame de 16/32/64 Mo • Moteur graphique 3D/2D 128 bits • Performance AGP 8x Interne • Conforme AGP Rev. 3.0
AC'97 Codec	<ul style="list-style-type: none"> • 6 canaux et conforme aux Spéc. Intel® AC'97 (REV. 2.3), respectant les exigences de Microsoft® PC2001 • Gestion d'alimentation avancée et capacités d'économie d'énergie. • Fonction de ligne d'entrée stéréo partagée avec la sortie Contour. • Entrée de CD Audio analogique pseudo différentielle de haute qualité. • Support d'Entrée/Sortie S/PDIF : Entrée S/PDIF est dotée du support des fonctionnalités d'interruption, auto-verrouillage, anti-bruit, et anti-distorsion. • Technologie logicielle complémentaire de valeur. Supporte la plupart des standards de l'industrie de son 3D PC et support de fonction de karaoké unique qui comprend l'écho microphone, décalage de touche, et annulation vocale.
Ports E/S Internes	<ul style="list-style-type: none"> • Deux ports PS/2 pour souris et clavier • Un port série • Un port parallèle • Un port VGA • Un LAN port (optionnel) • Quatre USB 2.0 ports fond de panier • Prises audio pour microphone, ligne d'entrée et ligne de sortie
LAN Fast Ethernet (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, support pour tous les Six ports • Conforme aux Spécifications d'interface de Contrôleur d'Hôte Amélioré de Intel Révision 1.0 • 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 .

Ausstattung

Prozessor	<p>Unterstützt Socket-462-Prozessoren</p> <ul style="list-style-type: none"> • Unterstützung für AMD Athlon XP/Athlon/Duron Prozessoren • Unterstützung von bis zu 333/266/200 MHz Front-Side Bus
Chipsatz	<p>Dieser Chipsatz besteht aus einer VIA KM266Pro 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"> • Hochleistungs CPU-Schnittstelle: Unterstützt einen AMD Athlon / Duron Prozessor mit A-Fassung (Fassung-462), 333/266/200 MHz Host-Adresse und Datentransferrate; Integrierter CPU-zu-DRAM Schreibpuffer und CPU-zu-DRAM Vor-Lesepuffer • Controller mit beschleunigter Grafikkarte (AGP) mit kompletten Eigenschaften: Transfer-Modus von 4x, nach den Richtlinien von AGP v2.0 mit einer Unterstützung von Fast Write (Schnellschreibung); lange Ausgangs-Transaktionsübertragungen, geteilt und gleichmässig ausgerichtet von bis zu 1 GB/Sek. • Fortgeschrittener 64-Bit DDR SDRAM Hochleistungs-Controller: Er unterstützt DDR333/266 Speichertypen mit einer 2.5V SSTL-2 DRAM Schnittstelle. • Mitwirkender PCI-Bus-Controller: 33 MHz-Betrieb, nach den Richtlinien von PCI 2.2, 32 Bit 3.3V PCI-Schnittstelle mit einer Eingangsenergie-Toleranz von 5V. • Fast Ethernet Controller: Voller und halber Duplex-Betrieb von 1/10/100 MHz • UltraDMA-133/100/66/33 Master-Modus EIDE-Controller: Übertragungsrate von bis zu 133MB/Sek um die Driver des PIO-Modus 4, Multi-Word-DMA-Modus 2, und eine UltraDMA-133-Schnittstelle zu decken. • Direct Sound Ready (Direkter Fertigtone) AC'97 Digital Audio Controller: nach den Richtlinien von AC'97 2.1 • Universaler Serien-Bus-Controller: USB v2.0 und vergrösserte Host-Controller-Schnittstelle (EHCI) kompatibel mit v1.0; USB v1.1 und Universale Host-Controller-Schnittstelle (UHCI) kompatibel mit v1.1
Speicherunterstützung	<ul style="list-style-type: none"> • Zwei 184-pin DIMM Steckplätze für DDR Speichermodule • Unterstützung für DDR333/266 Speicherbus • Maximal auf 2GB Speicher erweiterbar
Erweiterungsteckplätze	<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 133/100/66/33 MB/Sek
VGA	<ul style="list-style-type: none"> • Unterstützt Rahmenpuffergrößen von 16/32/64 MB • 128-Bit3D/2D-Grafikmotor • Interne 8x AGP-Leistung

	<ul style="list-style-type: none"> Nach den Richtlinien von AGP Rev. 3.0
AC'97 Codec	<ul style="list-style-type: none"> 6-Kanäle und gemäß Spezifikationen von Intel® AC'97 (REV. 2.3) , entspricht den Anforderungen von Microsoft® PC2001 Fortgeschrittene Betriebsstromzufuhr und stromsparend. Stereo Line-in Funktion, geteilt mit Surround-Out. Analoger CD Audio Input, pseudo-differential, von hoher Qualität. S/PDIF Input/Output Unterstützung: S/PDIF-In kennzeichnet sich durch eine Unterbrechungs-Unterstützung, Selbstblockierung, Anti-Geräusche, und Anti-Störungs Funktionsfähigkeit. Zusätzliche wertvolle Software-Technologie: Unterstützt die meisten PC 3D-Sound Industrienormen und die einzigartige Karaoke-Funktion, welche sich durch das Mikrofon-Echo, Tastatur-Umschaltung und Stoppen mittels Stimme hervorhebt.
Onboard I/O Ports	<ul style="list-style-type: none"> Zwei PS/2-Steckplätze für Maus und Tastatur yboard Ein serieller Steckplatz Ein paralleler Steckplatz Ein VGA-Steckplatz Ein LAN-Steckplatz (optional) Vier USB2.0-Ports auf der Rückseite 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, unterstützung für alle sechs ports Entspricht Intels Enhanced Host Controller Interface-Spezifikation, Revision 1.0 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.

Caratteristiche

Processor	<p>Dotata di Socket 462 per Processori</p> <ul style="list-style-type: none"> • Supporta CPU AMD Athlon XP/Athlon/Duron • Supporta fino a 333/266/200 MHz Front Side Bus
Chipset	<p>In accordo ad una architettura scabile e innovative sono presenti nel chipset il Northbridge VIA KM266Pro e Southbridge VT8235.</p> <ul style="list-style-type: none"> • Interfaccia CPU di elevata performance: Supporta Socket-A (Socket-462) processori AMD Athlon / Duron, 333/266/200 MHz indirizzo host e trasferimento dati; Memorie tampone di scrittura da CPU a DRAM integrate e memorie tampone di lettura da CPU a DRAM • Programma di controllo della porta per applicazioni grafiche accelerate con tutte le funzioni: AGP v2.0 compatibile in modalità trasferimento 4x con supporto Fast Write; Trasferimenti di lunghi pacchetti con transazioni split a condotta fino a 1 GB/sec. • Programma di controllo di elevata performance 64-bit DDR SDRAM: Supporta tipi di memoria DDR333/266 con interfaccia 2.5V SSTL-2 DRAM • Programma di controllo PCI Bus: operatività 33 MHz , compatibile PCI 2.2, interfaccia 32 bit 3.3V PCI con immissione dati tollerante V5 • Programma di controllo veloce Ethernet: 1/10/100 MHz operatività piena o mezzo duplex • Programma EIDE di controllo UltraDMA-133/100/66/33 Master Mode EIDE: Velocità di trasferimento fino a 133MB/sec che copre PIO mode 4, drive multi-parola modalità DMA e interfaccia UltraDMA-133 • Programma di controllo audio digitale per suono diretto AC'97: AC'97 2.1 compatibile • Programma di controllo per Bus universali seriali: USB v2.0 ed interfaccia Host Controller migliorata (EHCI) v1.0 compatibile; USB v1.1 e interfaccia universale Host Controller (UHCI) v1.1 compatibile
Memory Support	<ul style="list-style-type: none"> • Due slot DIMM a 184 pin per moduli di memoria DDR • Supporta bus di memoria DDR333/266 • Quantità massima di memoria installabile, 2GB
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 133/100/66/33 MB/sec
VGA	<ul style="list-style-type: none"> • Supporta Frame Buffer 16/32/64 MB • Motore grafico 128-bit 3D/2D • AGP interno 8x • AGP Rev. 3.0 Compatibile
AC'97 Codec	<ul style="list-style-type: none"> • 6 canali, conforme alle specifiche Intel® AC'97 (REV. 2.3) ed i requisiti Microsoft® PC2001

	<ul style="list-style-type: none"> • Gestione avanzata del risparmio energetico ed “Advanced power management”. • Funzione Stereo Line IN condivisa con Surround out. • Input Audio CD pseudo differenziale ad alta qualità. • Input/Output S/PDIF: S/PDIF In é dotato delle funzioni interrupt, auto-lock, anti-noise ed anti-distortion. • Tecnologie software aggiuntive : Supporto della maggior parte degli standard industriali 3D sound PC ed una funzione karaoke dotata di microphone echo, key shifting e vocal cancellation.
Onboard I/O Ports	<ul style="list-style-type: none"> • Due porte PS/2 per tastiera e mouse • Una porta seriale • Una porta VGA • Una porta parallela • Una porta LAN (opzionale) • Quattro USB 2.0 porte sul pannello posteriore • 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, supporto per tutte sei porte • Compliant with Intel's Enhanced Host Controller Interface Specification Revision 1.0 • 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.

Características

Procesador	<p>Soporte de Procesador Socket-462</p> <ul style="list-style-type: none"> • Soporta CPU de AMD Athlon XP/Athlon/Duron • Soporta hasta Bus de Lado Frontal de 333/266/200 MHz
Chipset	<p>Hay VIA KM266Pro Northbridge y VT8235 Southbridge en este chipset en conformidad con una arquitectura innovadora y escalable con fiabilidad y rendimiento comprobados.</p> <ul style="list-style-type: none"> • Interfaz de CPU de alto rendimiento: Soporta los procesadores Socket-A (Socket-462) AMD Athlon / Duron, 333/266/200 MHz de dirección anfitriona e índice de transferencia de datos; buffers de escritura CPU-a-DRAM integrados y buffers de pre-buscar lectura CPU-a-DRAM. • Controlador de Puerto de Gráficas Acelerado (AGP) con Características Completas: modo de transferencia 4x conforme a AGP v2.0 con soporte Fast Write, tranferencias de expulsión larga de transacción dividida y alineada a tubo hasta 1 GB/seg • Controlador Avanzado 64-bit DDR SDRAM de Alto Rendimiento: Soporta los tipos de memoria DDR333/266 con interfaz 2.5V SSTL-2 DRAM • Controlador de Bus PCI concurrente: operación de 33 MHz, conformidad PCI 2.2, interfaz 32 bit 3.3V PCI con entradas tolerantes de 5V • Controlador Fast Ethernet: operación duplex completo y medio de 1/10/100 MHz • Controlador EIDE de Modo Máster UltraDMA-133/100/66/33: Índice de transferencia hasta 133MB/seg para cubrir el PIO modo 4, unidades de multi-word DMA modo 2, e interfaz UltraDMA-133 • Sonido Directo Listo Controlador de Sonido Digital AC'97: Conformidad AC'97 2.1 • Controlador de Bus Serial Universal: USB v2.0 y compatible con la Interfaz de Controlador Anfitrión Reforzado (EHCI) v1.0; USB v1.1 y compatible con la Interfaz de Controlador Anfitrión Universal (UHCI) v1.1
Soporte de Memoria	<ul style="list-style-type: none"> • Dos ranuras 184-pin DIMM para módulos de memoria DDR • Soporta bus de memoria de DDR333/266 • Memoria máxima instalada es 2GB
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 133/100/66/33 MB/sec
VGA	<ul style="list-style-type: none"> • Soporta tamaños de Buffers de Cuadro 16/32/64 MB • Motor de gráficas 128-bit 3D/2D • Rendimiento AGP 8x interno

	<ul style="list-style-type: none"> • Conformidad AGP Rev. 3.0
AC'97 Codec	<ul style="list-style-type: none"> • 6-canales y conforme con la Espec. Intel® AC'97 (REV. 2.3), satisface los requisitos de Microsoft® PC2001 • Capacidades de administración de alimentación avanzada y ahorro de energía. • Función Stereo Line-in compartida con Surround out. • Salida CD Audio pseudo-diferencial analógica de alta calidad. • Soporta S/PDIF Input/Output: S/PDIF In se caracteriza con el soporte de interrupción, auto-bloqueo, anti-ruido, y anti-distorsión. • Tecnología de software adicional valiosa: Soporta la mayoría de las normas industriales de PC 3D sound y la función única de karaoke que se caracteriza por el eco de micrófono, cambio a teclados y cancelación a voz.
Puertos I/O Abordos	<ul style="list-style-type: none"> • Dos puertos PS/2 para ratón y teclado • Un puerto serial • Un puerto paralelo • Un puerto VGA • Un puerto LAN (optional) • Cuatro puertos USB 2.0 de panel trasero • 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, soporte para todos seis puertos • Conforme con Controlador Anfitrión Reforzado de Intel Interface Specification Revision 1.0 • 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.

Características

Processador	Suporte do Processador Socket-462 <ul style="list-style-type: none">• Suporta AMD Athlon XP/Athlon/Duron processadores• Suporta até 333/266/200 MHz Front-Side Bus
Chipset	Conta com VIA KM266Pro Northbridge e VT8235 Southbridge neste chipset, de acordo com uma arquitetura inovadora e escalável com um nível de confiança e desempenho comprovado. <ul style="list-style-type: none">• Interface CPU de Alta Performance: Com suporte para Socket-A (Socket-462) processadores AMD Athlon / Duron, endereço central 333/266/200 MHz e taxa de transferência de dados; buffers de escrita Integrados CPU-para-DRAM e buffers de leitura CPU-para-DRAM com pré-pesquisa• Controlador Com Todas as Características e Acelerado da Porta de Gráficos (AGP): AGP v2.0 compatível com modo de transferência 4x com suporte Fast Write; Transferências Paralelas de transação-repartida e de longa duração até 1 GB/sec• Controlador Avançado de Alta-Performance 64-bit DDR SDRAM: Com suporte para tipos de memória DDR333/266 com interface 2.5V SSTL-2 DRAM• Controlador Corrente PCI do Bus: funcionamento 33 MHz, compatível com PCI 2.2, interface 32 bit 3.3V PCI com entradas tolerantes 5V• Controlador Ethernet Rápida: 1/10/100 MHz funcionamento completo e semi-duplex• Controlador UltraDMA-133/100/66/33 Master Mode EIDE: Taxa de transferência até 133MB/sec para abranger os drivers PIO mode 4, multi-word DMA mode 2, e o interface UntraDMA-133• Controlador Direct Sound Preparado para AC'97 Áudio Digital: compatível com AC'97 2.1• Controlador Universal de Série do Bus: USB v2.0 e (EHCI) Interface Melhorado do Controlador Central compatível com v1.0; (UHCI) Interface USB v1.1 e Universal do Controlador Central compatível com v1.1
Suporte de memória	<ul style="list-style-type: none">• Dois sockets DIMM com 184 pinos para módulos de memória DDR• Suporta bus de memória DDR333/266• A memória máxima instalada é de 2GB
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 133/100/66/33 MB/sec
VGA	<ul style="list-style-type: none"> • Com suporte para tamanhos de Frame Buffer de 16/32/64 MB • Barra de gráficos 128-bit 3D/2D • Performance interna AGP 8x • Compatível com AGP Rev. 3.0
AC'97 Codec	<ul style="list-style-type: none"> • 6- canais e complacente com Especificação Intel® AC'97 (REV. 2.3) , de acordo com os requerimentos da Microsoft® PC2001 • Gerenciamento de força avançada e capacidade de economia de energia. • Função Stereo Line-in compatível com a saída do Surround. • Input de CD Áudio análogo pseudo diferencial de alta qualidade. • S/PDIF Input/Output suporta : S/PDIF In é caracterizado com suporte com funcionalidade de anti-distorção, anti-ruído, auto-trava, e inter rompimento. • Tecnologia add-on software valiosa: Suporta a maioria dos padrões industriais de som de PC 3D e função única de karaoke caracterizado com suporte para microfone eco, troca de tom e cancelamento vocal.
Portas I/O na placa	<ul style="list-style-type: none"> • Duas portas PS/2 para o rato e teclado • Uma porta série • Uma porta paralela • Uma porta VGA • Uma porta LAN (optional) • Quatro portos USB2.0 traseiros • 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, suporte para todas seis portas • Compatível com controlador Enhanced Host da Intel Revisão 1.0 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

- | | |
|--|---|
| | <ul style="list-style-type: none">• 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.

主な特徴

プロセッサ	<p>Socket-A プロセッサ対応</p> <ul style="list-style-type: none"> • AMD Athlon XP/Athlon/Duron プロセッサに対応。 • 333/266/200 MHzのシステムバス (FSB) をサポート。
チップセット	<p>搭載したVIA KM266ProノースブリッジおよびVT8235サウスブリッジ・チップセットは最新且つ拡張性あるアーキテクチャを採用し、高い安定性およびパフォーマンスを兼ね備えたものである。また、特徴は以下の通り：</p> <ul style="list-style-type: none"> • 高性能CPUインターフェース：ソケット-A (ソケット-462) AMD Athlon XP/Athlon / Duron プロセッサに対応し、 333/266/200 MHz ホストアドレスデータ転送率を提供。また、CPU-to-DRAM 書き込みバッファとCPU-to-DRAM 読み取りプリフェッチバッファを内蔵。 • 全機能AGP(Accelerated Graphics Port)コントローラ：AGP v2.0 に対応し、Fast Write機能付きの 4x 転送モードをサポート。さらに、Pipelined split-transaction long-burst 転送機能で最大1 GB/秒の転送率を実現。 • 改良型高性能64ビットDDR SDRAM コントローラ：2.5V SSTL-2 DRAM でDDR333/266メモリーをサポート。 • 並行PCIバスコントローラ：33 MHz 動作可能で、PCI 2.2 に対応し、32 ビット3.3V PCIインターフェースで5V 仕様入力に対応。 • 高速イーサネットコントローラ：1/10/100 MHz 全/半二重作動をサポート。 • UltraDMA-133/100/66/33 マスターモードEIDE コントローラ：転送率最大133MB/秒までのPIO モード4やmulti-word DMAモード2、UltraDMA-133 インターフェースに対応。 • Direct Sound 対応済みAC' 97 デジタルオーディオコントローラ：AC' 97 2.2 対応。

メモリのサポート	<ul style="list-style-type: none"> • DDR333/266 メモリーバス用の184ピンDIMM ソケットを2つ搭載。 • メモリー容量を最大2GBまでサポート。
拡張スロット	<ul style="list-style-type: none"> • 1つのCRTスロット • 1つのAGP2.0仕様に適合した4x AGPスロット • 2つのPCI2.2仕様に適合した32ビットPCIスロット
オンボードIDEチャネル	<ul style="list-style-type: none"> • IDE コネクタを2つ搭載。 • PIO (Programmable Input/Output) と DMA (Direct Memory Access) モードを対応。 • バスマスタ機能及びUltra DMA ATA100 133/100/66/33 モードをサポート。
VGA	<ul style="list-style-type: none"> • 16/32/64 MB フレームバッファサイズをサポート。 • 128-ビット3D/2D グラフィックエンジンを導入。 • AGP 8x 機能を内蔵済み。 • AGP Rev. 3.0 に対応。
AC' 97 コーデック	<ul style="list-style-type: none"> • 6-チャンネルで Intel® AC' 97 (REV. 2.3) 仕様に対応し、Microsoft® PC2001 の規格を準拠。 • 強化型電源管理省電機能を導入。 • ステレオライン入力とサラウンド出力が共用。 • 高品質 pseudo-differentialアナログCD オーディオ入力可能。 • S/PDIF 出力が 24/20/16ビットでの 96/48 kHz出力可能。 <p>付属のソフトウェア：業界のPC 3Dサウンド標準への対応と共に、カラオケ機能をも提供。このカラオケ機能で、マイクロフォンのエコー効果やキーの調整のほか、伴奏のみに設定するなどが可能。</p>
オンボード I/O ポート	<p>このマザーボードで利用可能な I/O ポートやコネクタは：</p> <ul style="list-style-type: none"> • 2つのPS/2ポート、一方がマウス用で、他方がキーボード用。 • 1つのシリアルポート • 1つのパラレルポート • 1つのVGA ポート • 1つのLANポート (オプション) • 4つのバックパネルUSB2.0 ポート <p>オーディオジャック一式、それでマイクロフォンやライン入力やライン出力を接続可能</p>
内蔵式のイーサネットLA	<ul style="list-style-type: none"> • 10ベース-T/100ベース-TX物理レイヤーソリューション。

N(オプション)	<ul style="list-style-type: none"> • デュアルスピード - 100/10 Mbps。 • コントローラ/設定・状態のMIIインターフェース。 • オートネゴシエーション: 10/100、全/半二重 <p>すべての適用可能なIEEE802.3、10ベース-T、100ベース-TX標準に対応。</p>
USB 2.0	<ul style="list-style-type: none"> • 汎用シリアルポート規格2.0に適合したポートを6つ搭載。 • Intel社の強化型ホストコントローラーインターフェース規格0.95に適合。 • 汎用ホストコントローラーインターフェース規格1.1に適合。 • 全/低速度信号転送用UHCI ホストコントローラーコアと、高速信号転送用EHCI ホストコントローラーコアとで構成したPCIマルチ機能デバイスである。 • UHCI および EHCI ホストコントローラーが共有する物理レイヤ受送信器を内蔵し、4つのダウンストリームポートで構成したルートハブである。 • PCIバス電源管理インターフェース規格1.1に適合。 旧式のダウンストリームポートをサポート。



注:

上記の仕様が事前の通告なしに変更する事がありますので、予めご了承願います。

주요 특징

A 프로세서	<p>이 메인보드의 주요 특징은 다음과 같다:</p> <p>소켓-A 프로세서 지원</p> <ul style="list-style-type: none"> • AMD Athlon XP/Athlon/Duron 프로세서 지원 • 333/266/200 MHz의 시스템버스 (FSB) をサポート
칩셋	<p>본 칩셋에는 혁신적이고 범위성을 지닌 아키텍처를 바탕으로 인정된 신뢰성과 성능을 지닌 VIA KM266Pro Northbridge 와 VT8235 Southbridge 가 사용되었으며 이 칩셋이 지닌 주요 고급 특징은 다음과 같다:</p> <ul style="list-style-type: none"> • 고 성능 CPU 인터페이스: 소켓-A (소켓-462) AMD 애슬론 XP/애슬론 / 듀론 프로세서, 333/266/200 MHz 호스트 어드레스 및 데이터 전송 속도 지원; CPU-to-DRAM 쓰기 버퍼 및 CPU-to-DRAM 읽기 prefetch 버퍼 통합 • 전 기능의 Accelerated Graphics Port (AGP) 컨트롤러: AGP v2.0 부합, 4 배속 전송 모드, Fast Write 지원; 파이프라인의 분담 처리로 최대 1 GB/sec 의 속도로 긴 전송 • 고급의 고성능 64 비트 DDR SDRAM 컨트롤러: 2.5V SSTL-2 DRAM 인터페이스를 지닌 DDR333/266 메모리 타입 지원 • 공존 PCI 버스 컨트롤러: 33 MHz 오퍼레이션, PCI 2.2 부합, 5V 용인 입력의 32 비트 3.3V PCI 인터페이스 • 패스트 이더넷 컨트롤러: 1/10/100 MHz 풀/하프 듀플렉스 오퍼레이션 • UltraDMA-133/100/66/33 마스터 모드 EIDE 컨트롤러: 최대 전송 속도 133MB/sec 로 PIO 모드 4, multi-word DMA 모드 2 드라이브, 및 UltraDMA-133 인터페이스 커버 • 디렉트 사운드 레디 AC' 97 디지털 오디오 컨트롤러: AC' 97 2.2 부합 <p>유니버설 시리얼 버스 컨트롤러: USB v2.0 및 Enhanced Host Controller Interface (EHCI) v1.0 호환; USB v1.1 및 Universal Host Controller Interface (UHCI) v1.1 호환</p>
메모리 지원	<ul style="list-style-type: none"> • DDR333/266 의 메모리 버스를 위한 2 개의 184 핀 DIMM 소켓 • メモリ容量を最大2GBまでサポートします。

확장 슬롯	<ul style="list-style-type: none"> • CNR 슬롯 1개 • 4xAGP 슬롯 1 개 (AGP 2.0호환 인터페이스용) • 32 비트 PCI 슬롯 2개 (PCI 2.2 호환 버스 인터페이스용)
보드 내장 IDE 채널	<ul style="list-style-type: none"> • IDE 커넥터 2개 • PIO (Programmable Input/Output) 및 DMA (Direct Memory Access) 모드 지원 • Bus Mastering 및 Ultra DMA ATA 100 133/100/66/33 모드 지원
VGA	<ul style="list-style-type: none"> • 시스템 메모리 사용 16/32/64MB 프레임 버퍼 • 128 비트 2D/3D 그래픽 엔진 • 내장된 AGP 8x 성능 • AGP Rev. 3.0 부합
AC' 97 코덱	<ul style="list-style-type: none"> • 6 채널, Intel® AC' 97 (REV. 2.3) 사양 부합, Microsoft® PC2001 요구사항에 부합. • 고급 전원 관리 및 절전 기능. • 서라운드 출력을 공유하는 스테레오 라인 입력 기능. • 고품질의 pseudo-differential 아날로그 CD 오디오 입력. • S/PDIF 출력 지원: 24/20/16 비트의 96/48 kHz 출력. • 애드온 소프트웨어 기술: PC 3D 사운드의 가장 보편적인 산업 표준 지원. 독특한 가라오케 기능은 마이크 에코, 키 이동, 보컬 취소 등의 기능을 지원한다.
통합 I/O	<p>이 메인보드는 다음과 같은 풀 세트의 확장 옵션이 있다:</p> <ul style="list-style-type: none"> • 마우스와 키보드용 PS/2 포트 2 개 • 시리얼 포트 1 개 • 패러럴 포트 1 개 • VGA 포트 2 개 • LAN 포트 1 개 (선택 사항) • 뒤 패널 USB2.0 포트 4 개 • 마이크 용 오디오 잭, 라인 입력 및 라인 출력
내장 이더넷 랜 (선택사항)	<ul style="list-style-type: none"> • 10Base-T/100Base-TX 물리적 레이어 솔루션 • 듀얼 스피드 - 100/10 Mbps • 이더넷 컨트롤러/구성 및 상태의 MII 인터페이스 • 자동 조정: 10/100, Full/Half Duplex • IEEE802.3, 10Base-T 및 100Base-TX 표준 부합
USB 2.0	<ul style="list-style-type: none"> • 유니버설 시리얼 버스 2.0 사양에 부합, 6 개의 모든 포트를 지원 • Intel 의 Enhanced Host Controller Interface 0.95 사양과 호환

	<ul style="list-style-type: none"> • Universal Host Controller Interface 1.1 사양과 호환 • 2개의 UHCI Host Controller 코어(전속/저속 시그널링 용) 와 1 개의 EHCI Host Controller 코어(고속 시그널링 용)로 구성된PCI 다기능 장치 • 4개의 다운스트림 페이싱 포트와 UHCI 와 EHCI 호스트컨트롤러에 의해 공유되는 integrated physical layer transceiver로구성된 Root hub • PCI-버스 전력 관리 인터페이스 1.1 사양 지원 • 모든 다운스트림 페이싱 포트를 지원하는 Legacy
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Note: 하드웨어 사양 및 소프트웨어 아이템은 사전 통지 없이 변경될 수 있습니다.

主要功能

處理器	<p>Socket-A 處理器支援</p> <ul style="list-style-type: none"> • 支援AMD Athlon XP/Athlon/Duron 處理器 • 支援高達333/266/200 MHz的前側匯流排
晶片組	<p>本主機板搭載了VIA KM266Pro北橋及VT8235南橋晶片組，採用了獨創且具有擴充功能的架構，能夠發揮最佳的穩定性及功能。本晶片組具有下列先進的功能：</p> <ul style="list-style-type: none"> • 高性能CPU介面：支援 Socket-A (Socket-462) AMD Athlon XP/Athlon / Duron 處理器及333/266/200 MHz 主控位址資料傳輸率；內建有CPU-to-DRAM 輸入緩衝器及CPU-to-DRAM 讀取預先擷取緩衝器。 • 全功能加速繪圖埠 (AGP) 控制器：AGP v2.0相容，以快寫功能支援具有4倍速傳輸模式；採多重管道長集送傳輸方式，最大提供1 GB/秒之傳輸效能。 • 先進高性能64位元DDR SDRAM 控制器：以2.5V SSTL-2 DRAM介面支援 DDR333/266 記憶體。 • 並行PCI匯流排控制器：33 MHz 動作速度，PCI 2.2 相容，32位元3.3V PCI 介面支援5V額定輸入。 • 快速乙太控制器：1/10/100 MHz 全雙工及半雙工動作。 • UltraDMA-133/100/66/33 主控模式EIDE控制器：傳輸速度高達133MB/秒，全面支援PIO 模式 4、multi-word DMA 模式2、UltraDMA-133 介面。 • Direct Sound 支援的AC' 97 數位音訊控制器：AC' 97 2.2 規格相容。
記憶體支援	<ul style="list-style-type: none"> • 配備2個 184針DIMM 插槽，支援 DDR333/266 記憶體匯流排。 • 可支援高達2GB的記憶體
擴充槽	<ul style="list-style-type: none"> • 1個CNR槽 • 1個符合AGP2.0介面規格之4xAGP插槽 • 2個符合PCI2.2介面規格之32位元PCI插槽
內建IDE通道	<ul style="list-style-type: none"> • 2個IDE連接器 • 支援PIO(可程式輸出入) 及DMA (直接記憶體存取) 模式 • 支援Bus Mastering 及 Ultra DMA ATA100 133/100/66/33 模式
VGA	<ul style="list-style-type: none"> • 支援 16/32/64 MB 框架緩衝記憶 • 128位元3D/2D 繪圖引擎 • 提供內建立 AGP 8x 效能 • AGP Rev. 3.0 相容
AC' 97 CODEC	<ul style="list-style-type: none"> • 具有6聲道且相容於Intel® AC' 97 (2.3版)規格，符合Microsoft® PC2001 要求。 • 先進電源管理及省電功能。 • 立體聲線級輸入端子與環場音效輸出端子共用。 • 高品質 pseudo微分類比CD 音訊輸入。 • S/PDIF 輸出功能支援24/20/16 位元之 96/48 kHz 輸出。

	<ul style="list-style-type: none"> 隨機贈送之軟體：支援現有標準的 PC 3D 音效，並提供獨特的KO功能，且此一KO功能支援麥克風回音、音階調整、及歌聲消音功能。
機載 I/O 埠	<p>本主機板完整地支援各種輸入及連接器：</p> <ul style="list-style-type: none"> 2個 PS/2 埠，分供滑鼠及鍵盤連接 1個串列埠 1個平行埠 1個VGA 1個LAN埠(選購) 背面有4個 USB2.0 埠 麥克風、線級輸入(line-in)及線級輸出(line-out)音效端子
內建乙太網路功能(選購)	<ul style="list-style-type: none"> 10Base-T/100Base-TX 實體層解決方案 雙向速率高達 100/10 Mbps。 具有媒體無關介面 (MII) 之高速乙太網路收發器/設定及狀態 以 標準自動檢測方式進行全雙工或半雙工傳輸 符合 IEEE 802.3、10Base-T 及100Base-Tx 等所有標準。
USB 2.0	<ul style="list-style-type: none"> 提供符合汎用串列匯流排規格2.0, 的6個連接埠。 與Intel公司之加強型主控制卡介面規格(Enhanced Host Controller Interface Specification)0.95版相容。 與汎用主控制卡介面(Universal Host Controller Interface)規格1.1版相容。 配備PCI多功能，具有2個全/低速信號處理用UHCI 主控制核心及1個高速信號傳輸用EHCI 控制核心。 主集線器具有4個下行埠，且內建有由UHCI及EHCI控制器共享之物理層收發器。 支援 PCI-匯流排式 電源管理介面(Power Management Interface) 規格1.1版。 支援所有舊式的下行傳輸埠。



有些硬體規格以及軟體物件將視狀況適當調整，不予另行通知

功能

处理器	<p>支持 Socket-462 处理器</p> <ul style="list-style-type: none"> 支持 AMD Athlon XP/Athlon/Duron CPU 支持 333/266/200 MHz 前端总线
芯片组	<p>芯片组包含 VIA KM266Pro 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。</p> <ul style="list-style-type: none"> 高性能 CPU 接口：支持 Socket-A (Socket-462) AMD Athlon / Duron 处理器，333/266/200 MHz 主机地址和数据传输速率；集成 CPU-到-DRAM 写缓冲和 CPU-到-DRAM 读预取缓冲 全功能加速图形端口 (AGP) 控制器。符合 AGP v2.0 标准，4X 传输模式，支持快写；流水线分离传输长猝发传输速度可达 1GB/sec 增强高性能 64 位 DDR SDRAM 控制器：支持带 2.5V SSTL-2 DRAM 接口的 DDR333/266 内存 并发 PCI 总线控制器：工作频率 33 MHz，符合 PCI2.2 标准，带 5V 输入的 32 位 3.3V PCI 接口。 快速以太网控制器：1/10/100 MHz 全双工和半双工操作 UltraDMA-133/100/66/33 主控模式 EIDE 控制器：传输速率可达 133MB/sec，支持 PIO 模式 4、多字 DMA 模式 2 驱动程序和 UltraDMA-133 接口 AC' 97 数字音频控制器：符合 AC' 97 2.1 标准 通用串行总线控制器：兼容 USB v2.0 和增强主控器接口 (EHCI) v1.0；兼容 USB v1.1 和通用主控器接口 (UHCI) v1.1
内存支持	<ul style="list-style-type: none"> 2 个用于 DDR 内存条的 184-pin DIMM 插槽 支持 DDR333/266 存储总线 内存最多可达 2GB
扩展槽	<ul style="list-style-type: none"> 2 个 32 位 PCI 插槽 1 个 CNR 槽 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 133/100/66/33 MB/sec
VGA	<ul style="list-style-type: none"> 支持 16/32/64 MB 帧缓冲 128 位 3D/2D 图形引擎 内部 AGP 8x 性能 符合 AGP Rev. 3.0 规格
AC' 97 编解码器	<ul style="list-style-type: none"> 6 通道，符合 Intel® AC' 97 (REV. 2.3) 规格，满足 Microsoft® PC2001 要求 高级电源管理和节电功能。 共享环绕输出的立体声线入功能。 高质量伪差分模拟 CD 音频输入。 支持 S/PDIF 输入/输出：S/PDIF In 支持中断、自锁、抗噪和抗失真功能。 增值软件技术。支持大部分 PC 3D 立体声行业标准和卡拉 OK 功能，支持话筒回声消除、键移动和声音消除功能。
集成 I/O 端口	<ul style="list-style-type: none"> 2 个用于鼠标和键盘的 PS/2 端口

	<ul style="list-style-type: none"> • 1 个串口 • 1 个并口 • 1 个 VGA 端口 • 1 个 LAN 端口(可选) • 主板后面板带 4 个 USB 2.0 端口接口 • 麦克风、线入和线出声音插孔
内建以太网 LAN (可选)	<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, 可支持 6 个 端口 • 符合 Intel 1.0 版本的增强主控制器接口规格 • 符合 1.1 版本的通用主控制器接口规格 • PCI 多功能设备由 2 个用于全速/低速传输数据的 UHCI 主控制器和 1 个用于高速传输数据的 EHCI 主控制器组成 • 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 motherboard has **onboard AMD Athlon XP/Athlon/Duron** processors with front-side bus (FSB) speed up to **333/266/200 MHz**.

This motherboard integrates **VIA KM266Pro** Northbridge and **VT8235** Southbridge chipsets that support one **4X AGP** slot for highly graphics display, two 184-pin DIMM sockets for **DDR333/266** memory bus, and **Ultra DMA ATA133/100/66/33** function to provide outstanding high system performance under all types of system operations. It supports the **AC'97 Audio Codec** compliant with the AC'97 2.3 specification that meets the PC2001 requirements and supports S/PDIF Out. It has a **CNR** (Communications and Networking Riser) slot and a built-in **10BaseT/100BaseTX Network Interface** (optional). It is compliant with AGP v2.0, up to 1 GB/sec data transfer rate capability, and pseudo-synchronous AGP and CPU interface to maximize system performance. Featuring **128-bit 3D/2D graphics** engine, it utilizes a highly pipelined architecture that provides high performance along with superior image quality.

There is a full set of I/O Ports including PS/2 keyboard and mouse ports, one serial port, one onboard VGA port, one parallel port, one LAN port (optional), audio jacks for microphone, line-in and line-out, four back-panel USB2.0 ports and onboard USB header USB3 providing two extra ports by connecting the extended USB module to the motherboard.

This motherboard has all the features you need to develop a powerful multimedia workstation that is network ready. The board is **Micro ATX size** and has power connectors for an **ATX** power supply.

Key Features

The key features of this motherboard include:

Socket-A Processor Support

- ◆ Supports **onboard AMD Athlon XP/Athlon/Duron** processors
- ◆ Supports Front-Side Bus (FSB) **333/266/200 MHz**

Chipset

There are **VIA KM266Pro** 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:

- ◆ High Performance CPU Interface: Supports Socket-A (Socket-462) **AMD Athlon XP/Athlon / Duron** processors, **333/266/200 MHz** host address and data transfer rate; Integrated CPU-to-DRAM write buffers and CPU-to-DRAM read prefetch buffers
- ◆ Full Featured Accelerated Graphics Port (AGP) Controller: AGP v2.0 compliant 4x transfer mode with Fast Write support; Pipelined split-transaction long-burst transfers up to 1 GB/sec
- ◆ Advanced High-Performance 64-bit DDR SDRAM Controller: Supports **DDR333/266** memory types with 2.5V SSTL-2 DRAM interface
- ◆ Concurrent PCI Bus Controller: 33 MHz operation, PCI 2.2 compliant, 32 bit 3.3V PCI interface with 5V tolerant inputs
- ◆ **Fast Ethernet Controller: 1/10/100 MHz** full and half duplex operation
- ◆ **UltraDMA-133/100/66/33** Master Mode EIDE Controller: Transfer rate up to 133MB/sec to cover PIO mode 4, multi-word DMA mode 2 drives, and UltraDMA-133 interface
- ◆ Direct Sound Ready **AC'97** Digital Audio Controller: AC'97 2.1 compliant

- ◆ Universal Serial Bus Controller: **USB v2.0** and Enhanced Host Controller Interface (EHCI) v1.0 compatible; USB v1.1 and Universal Host Controller Interface (UHCI) v1.1 compatible

Memory Support

- ◆ Two 184-pin DIMM sockets for **DDR333/266** memory bus
- ◆ Maximum installed memory is 2GB

Expansion Slots

- ◆ One CNR slot
- ◆ One **4X AGP** slot for AGP 2.0-compliant interface
- ◆ Two 32-bit PCI slots for PCI 2.2-compliant bus interface

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 **133/100/66/33 MB/sec**

VGA

- ◆ Supports 16/32/64 MB Frame Buffers sizes
- ◆ **128-bit 3D/2D** graphic engine
- ◆ Internal AGP 8x performance
- ◆ AGP Rev. 3.0 Compliant

AC'97 Codec

- ◆ 6- channel and compliant with Intel® AC'97 (REV. 2.3) Spec, meeting with Microsoft® PC2001 requirements
- ◆ Advanced power management and power saving capabilities.
- ◆ Stereo Line-in function shared with Surround out.
- ◆ High quality pseudo-differential analog CD Audio input.
- ◆ S/PDIF Output support: Output 96/48 kHz with 24/20/16 bits

- ◆ Valuable add-on software technology: Support most industry standards of PC 3D sound and unique karaoke function support featured with microphone echo, key shifting, and vocal cancellation.

Onboard I/O Ports

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

- ◆ Two PS/2 ports for mouse and keyboard
- ◆ One serial port
- ◆ One parallel port
- ◆ One VGA port
- ◆ One LAN port (optional)
- ◆ Four back-panel USB2.0 ports
- ◆ Audio jacks for microphone, line-in and line-out


Built-in Ethernet LAN (optional)

- ◆ **10Base-T/100Base-TX 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

USB 2.0

- ◆ Compliant with Universal Serial Bus Specification Revision 2.0, and support for all six ports
- ◆ Compliant with Intel's Enhanced Host Controller Interface Specification Revision 1.0
- ◆ 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

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

Chapter 2

Motherboard Installation

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

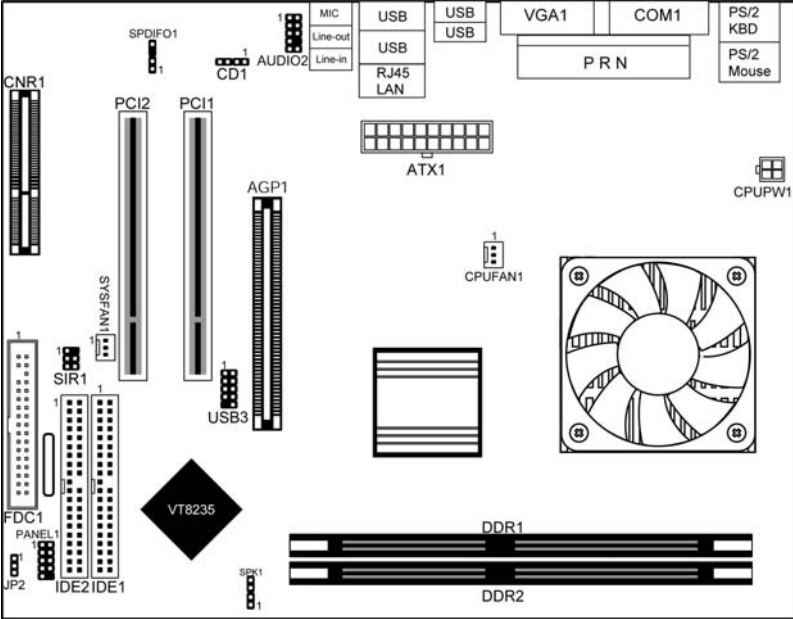
- ❑ Identify the motherboard components
- ❑ Install one or more system memory modules
- ❑ Make sure all jumpers and switches are set correctly
- ❑ Install this motherboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to connectors/headers on the motherboard
- ❑ Install peripheral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

Note:

1. Before installing this motherboard, make sure jumper JP2 is under Normal setting. See this chapter for information about locating JP2 and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the motherboard.

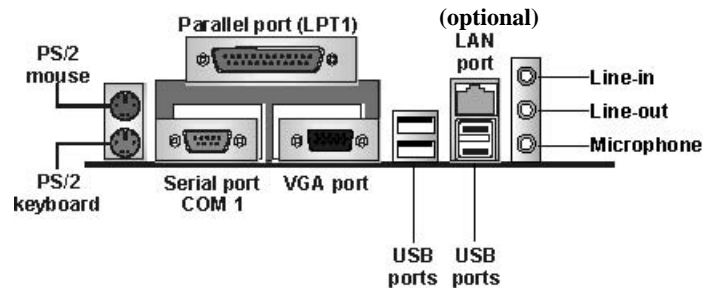
Motherboard Components

This diagram below identifies major components on the motherboard.



I/O Ports

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

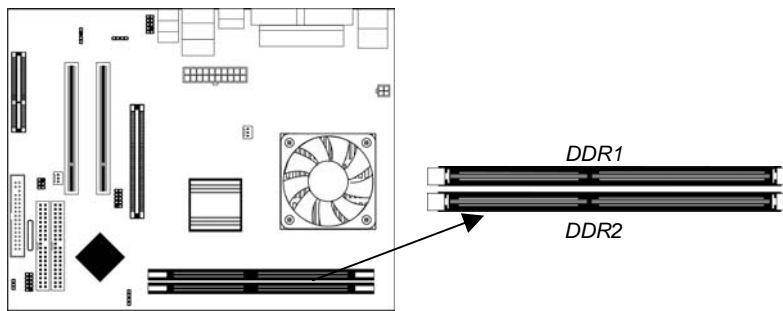


PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
LPT1	Use LPT1 to connect printers or other parallel communications devices.
COM1	Use the COM port to connect serial devices such as mice or fax/modems. COM1 is identified 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 Memory Modules

This motherboard accommodates two 184-pin 2.5V DIMM sockets (Dual Inline Memory Module) for unbuffered **DDR333/266** memory modules (Double Data Rate SDRAM), and maximum 2.0GB installed memory.

DDR SDRAM is a type of SDRAM that supports data transfers on both edges of each clock cycle (the rising and falling edges), effectively doubling the memory chip's data throughput.



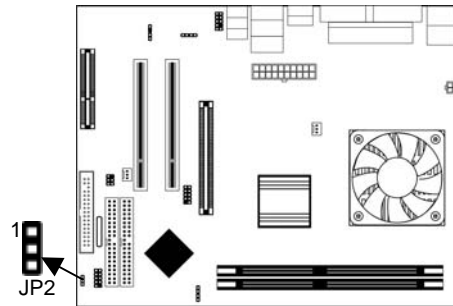
Installation Procedure

These modules can be installed with up to 2 GB system memory. Refer to the following to install the memory modules.

1. Push the latches on each side of the DIMM socket down.
2. Align the memory module with the socket. The DIMM sockets are keyed with notches and the DIMMs are keyed with cutouts so that they can only be installed correctly.
3. Check that the cutouts on the DIMM module edge connector match the notches in the DIMM socket.
4. 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.
5. Install any remaining DIMM modules.

Jumper Settings

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



Jumper JP2: Clear CMOS Memory

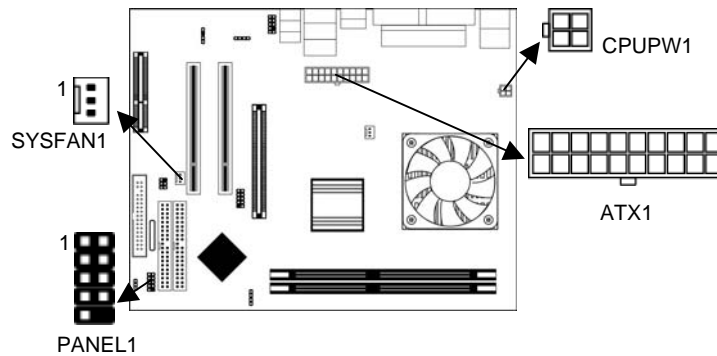
This jumper can clear the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect that your motherboard can't operate. To clear the CMOS memory, disconnect all the power cables, and then move the jumper cap into the CLEAR setting for a few seconds.

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

Installing The Motherboard

Install the motherboard in a system chassis (case). The board is a Micro ATX size motherboard. You can install this motherboard in an ATX case. Ensure your case has an I/O cover plate that matches the ports on this motherboard.

Install the motherboard in a case. Follow the case manufacturer's instructions to use hardware and internal mounting points on the chassis.



Connect the power connector from the power supply to the **ATX1** connector on the motherboard. **CPUPW1** is a +12V connector for CPU Vcore power.

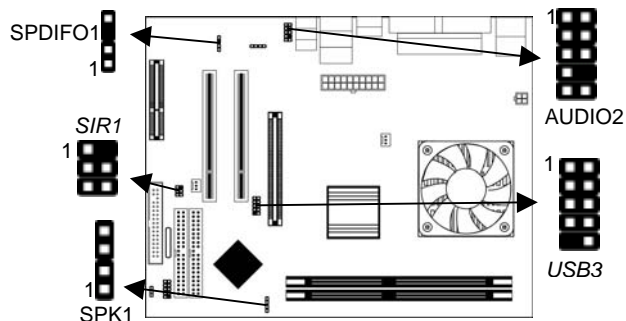
If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **SYSFAN1** fan power connector on the motherboard.

Connect the case switches and indicator LEDs to the **PANEL1** header.

Pin	Signal	Pin	Signal
1	HD_LED_P(+)	2	FP PWR/SLP(+)
3	HD_LED_N(-)	4	FP PWR/SLP(-)
5	RESET_SW_N(-)	6	POWER_SW_P(+)
7	RESET_SW_P(+)	8	POWER_SW_N(-)
9	RSVD_DNU	10	KEY

Connecting Optional Devices

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



SPK1: Speaker Header

Connect the cable from the PC speaker to the **SPK1** header on the motherboard.

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

AUDIO2: Front Panel Audio Header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal	Pin	Signal
1	AUD_MIC	2	AUD_GND
3	AUD_MIC_BIAS	4	AUD_VCC
5	AUD_FPOUT_R	6	AUD_RET_R
7	HP_ON	8	KEY
9	AUD_FPOUT_L	10	AUD_RET_L

Note: If you want to connect the front panel sound jack, you have to remove jumper caps of Pin(5-6) and Pin(9-10) from the AUDIO2 header.

USB3: Front panel USB Header

The motherboard has USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB connector USB3 to connect the front-mounted ports to the motherboard.

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

1. Locate the USB3 header on the motherboard.
2. Plug the bracket cable onto the USB3 header.
3. Remove a slot cover from one of the expansion slots on the system chassis. Install an extension bracket in the opening. Secure the extension bracket to the chassis with a screw.

SIR1: Infrared Port

The infrared port allows 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

1. Locate the infrared port **SIR1** header on the motherboard.
2. If you are adding an infrared port, connect the ribbon cable from the port to the SIR1 header and then secure the port to an appropriate place in your system chassis.

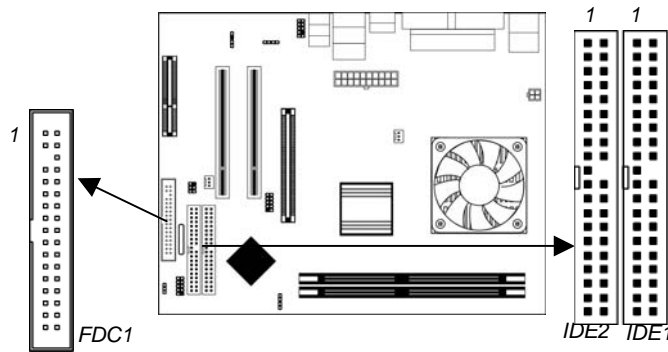
SPDIF01: S/PDIF Out Header

S/PDIF (Sony/Philips Digital Interface) is a standard audio transfer file format and allows the transfer of digital audio signals from one device to another without having to be converted first to an analog format. Via a specific audio cable, you can connect the SPDIF01 header (S/PDIF output) on the motherboard to the S/PDIF digital input on the external speakers or AC Decode devices.

Pin	Signal	Pin	Signal
1	SPDIFOUT	2	+5VA
3	KEY	4	GND

Installing Other Devices

Install and connect any other devices in the system following the steps below.



Floppy Disk Drive

The motherboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5" or 5.25" wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB. Install your drives and connect power from the system power supply. Use the cable provided to connect the drives to the floppy disk drive connector **FDC1**.

IDE Devices

IDE devices include hard disk drives, high-density diskette drives, and CD-ROM or DVD-ROM drives, among others.

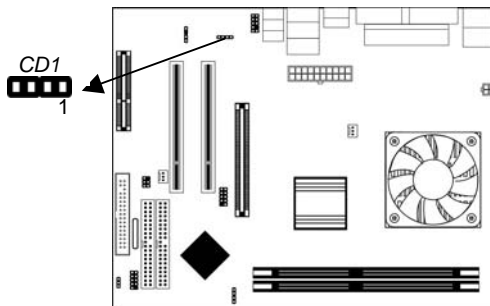
The motherboard ships with an IDE cable that can support one or two IDE devices. If you connect two devices to a single cable, you must configure one of the drives as Master and one of the drives as Slave. The documentation of the IDE device will tell you how to configure the device as a Master or Slave device. The Master device connects to the end of the cable.

Install the device(s) and connect power from the system power supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the motherboard.

If you want to install more IDE devices, you can purchase a second IDE cable and connect one or two devices to the Secondary IDE channel connector **IDE2** on the motherboard. If you have two devices on the cable, one must be Master and one must be Slave.

Internal Sound Connections

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system.



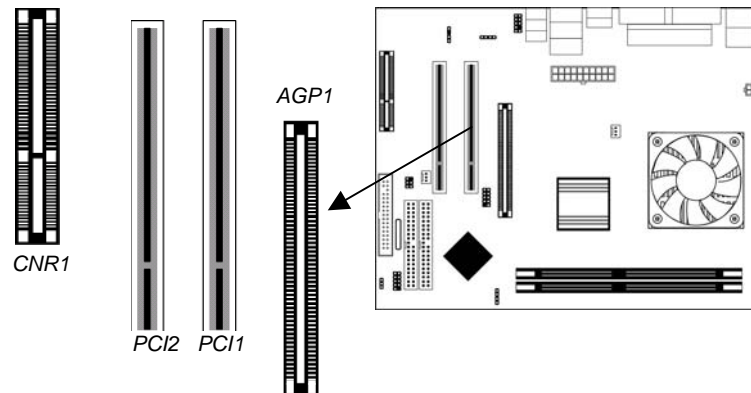
When you first start up your system, the BIOS should automatically detect your CD-ROM/DVD drive. If it doesn't, enter the Setup Utility and configure the CD-ROM/DVD drive that you have installed. On the motherboard, locate the 4-pin header **CD1**.

CD1

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

Expansion Slots

This motherboard has one AGP, one CNR and two 32-bit PCI slots.



Follow the steps below to install a PCI/AGP/CNR expansion card.

1. Locate the CNR, AGP or PCI slots on the motherboard.
2. Remove the blanking plate of the slot from the system chassis.
3. Install the edge connector of the expansion card into the slot.
Ensure the edge connector is correctly seated in the slot.
4. Secure the metal bracket of the card to the system chassis with a screw.

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 the 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 motherboard, 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 1.21.13 (C) 2000 American Megatrends, Inc. All Rights Reserved	
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 COMOS setup for changing time, date, hard disk type, etc.	

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

Some of the options on the main menu page lead to tables of items with installed values. In these pages, use the cursor arrow keys to highlight the items, and then use the **PgUp** and **PgDn** keys to cycle through the alternate values for each of the items. Other options on the main menu page lead to dialog boxes requiring you to answer Yes or No by hitting the **Y** or **N** keys.

If you have already made changes to 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

Use this page to set basic information such as the date, the time, the IDE devices, and the diskette drives. If you press the F3 key, the system will automatically detect and configure the hard disks on the IDE channels.

AMIBIOS SETUP - STANDARD CMOS SETUP										
(C) 2000 American Megatrends, Inc. All Rights Reserved										
Date (mm/dd/yy) : Mon Apr 05, 2004										
Time (hh/mm/ss) : 13:51:23										
	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 3 1/2										
Floppy Drive B : Not Installed										
Month : Jan - Dec					ESC : Exit					
Day : 01 - 31					↑↓ : Select Item					
Year : 1980 - 2099					PU/PD/+/- : Modify					
					(Shift)F2 : Color					
					F3 : Detect All HDD					

Date & Time	Use these items to set the system date and time
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 the size and capacity of the floppy diskette drive(s) installed in the system.

Advanced Setup Page

Use this page to set more advanced information about your system. Take some care with this page. Making changes can affect the operation of your computer.

AMIBIOS SETUP – ADVANCED SETUP		
(C) 2000 American Megatrends, Inc. All Rights Reserved		
Quick Boot	Enabled	
1 st Boot Device	IDE-0	
2 nd Boot Device	Floppy	
3 rd Boot Device	CD/DVD-0	
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 > 64MB	No	
L2 Cache	Enabled	
System BIOS Cacheable	Enabled	ESC : Quit ↑↓←→ : Select Item
Graphic Win Size	64MB	F1 : Help PU/PD/+/- : Modify
SDRAM Timing by SPD	Enabled	F5 : Old Values (Shift)F2 : Color
SDRAM CAS# Latency	2.5	F6 : Load BIOS Defaults
SDRAM Bank Interleave	Disabled	F7 : Load Setup Defaults
Auto Detect DIMM/PCI Clk	Enabled	
Spread Spectrum	Disabled	

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 2nd Boot Device 3rd 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.
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 cache memory.
System BIOS Cacheable	If you enable this item, a segment of the system BIOS will be cached to main memory for faster execution.
Graphic Win Size	This item defines the size of aperture if you use a graphic adapter.
SDRAM Timing by SPD	This item enables or disables the SDRAM timing defined by the Serial Presence Detect electrical.
SDRAM CAS# Latency	This item determines the operation of SDRAM 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.

SDRAM Bank Interleave	Enable this item to increase SDRAM memory speed. When enabled, separate memory banks are set for odd and even addresses, and upcoming byte of memory is accessible while refreshing the current byte.
Auto Detect DIMM/PCI Clk	When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.
Spread Spectrum	If you enable spread spectrum, it can significantly reduce the EMI(Electro-Magnetic Interference) generated by the system.

Power Management Setup Page

This page sets some of the parameters for 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	Disabled	
Resume On RTC Alarm	Disabled	
RTC Alarm Date	15	
RTC Alarm Hour	12	
RTC Alarm Minute	30	
RTC Alarm Second	30	ESC : Quit ↑↓←→ : Select Item
LAN/Ring Power On	Disabled	F1 : Help PU/PD/+/- : Modify
Keyboard Power On	Disabled	F5 : Old Values (Shift)F2 : Color
Wake-Up Key	Any Key	F6 : Load BIOS Defaults
Wake-Up Password	N/A	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	This item enables or disables a power management scheme. If you enable power management, there are some options for you to decide the power management operation. Both APM and ACPI are supported.

Suspend Time Out	This item sets up the timeout (minutes) for the Suspend mode. The computer will be a power-saving Suspend mode if the system has been inactive after the setup time
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 any key or power key on the keyboard, or typing in the password. You must use an ATX power supply in order to use this feature.

PCI / Plug and Play Setup Page

This page sets some of the parameters for devices installed on the PCI bus and devices that use the system plug and play capability.

AMIBIOS SETUP – PCI / PLUG AND PLAY SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved	
Share Memory Size	32MB
Primary Graphics Adapter	PCI
Allocate IRQ to PCI VGA	Yes
PCI IDE BusMaster	Disabled
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	This item lets you allocate a portion of the main memory for the onboard VGA display application with 8/16/32MB options.
Primary Graphics Adapter	This item indicates if the primary graphics adapter uses the PCI or the AGP bus. The default PCI setting still lets the onboard display work and allows the use of a second display card installed in a PCI slot.
Allocate IRQ to 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 recommend 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 some of the parameters for peripheral devices connected to the system.

AMBIOS SETUP - FEATURES SETUP		
(C) 2000 American Megatrends, Inc. All Rights Reserved		
OnBoard FDC	Enabled	
OnBoard Serial PortA	3F8/COM1	
OnBoard IR Port	Disabled	
OnBoard Parallel Port	378	
Parallel Port Mode	ECP	
Parallel Port IRQ	7	
Parallel Port DMA	3	
OnBoard PCI IDE	Both	ESC : Quit ↑↓←→ : Select
Audio Device	Enabled	Item
Modem Device	Auto	
Ethernet Device	Enabled	F1 : Help PU/PD/+/- : Modify
OnBoard USB Function	Enabled	F5 : Old Values (Shift)F2 : Color
USB Function For DOS	Disabled	F6 : Load BIOS Defaults
ThumbDrive for DOS	Disabled	F7 : Load Setup Defaults

OnBoard FDC	This item enables or disables the onboard floppy disk drive interface.
OnBoard Serial PortA	These items enable or disable the onboard COM1 serial port, and assign a port address.
OnBoard IR Port	This item enables or disables the Infrared port, and assigns a port address. If you select a specific address, the resources are assigned to the IR port, and you can use the five items below to determine the operation of the IR port
Onboard Parallel Port	This item enables or disables the onboard LPT1 parallel port, and assigns a port address. The Auto setting will detect and available address.
Parallel Port Mode	This item decides 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	This item assigns either IRQ 5 or 7 to the parallel port.
Parallel Port DMA	This item assigns a DMA channel to the parallel port. The options are 0, 1 and 3.
OnBoard PCI IDE	This item enables or disables either or both of the onboard Primary and Secondary IDE channels.
Audio Device	This item enables or disables the onboard AC'97 audio chip.
Modem Device	This item enables or disables the onboard AC'97 modem chip.
Ethernet Device	This item enables or disables the onboard Ethernet LAN.
OnBoard USB Function	Enable this item if you plan to use the USB ports on this motherboard.
USB Function For DOS	Enable this item if you plan to use the USB ports on this mainboard in a DOS environment.

ThumbDrive for DOS	Enable this item to make a small portion of memory storage device for the USB ports.
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CPU PnP Setup Page

This page lets you manually configure the motherboard for the CPU. The system will automatically detect the kind of CPU that you have installed and make the appropriate adjustments to the items on this page.

AMIBIOS SETUP – CPU PnP SETUP	
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CPU Over-clocking Func.	Disabled
CPU Frequency	166 MHz
CPU Over-Clocking Freq.	N/A
DRAM Frequency	Auto
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 Over-Clocking Func.	This item enables or disables the CPU over-clocking function installed in your system.
CPU/DRAM Frequency Ratio	This item adjusts the CPU/DRAM frequency installed in your system.
CPU Over-Clocking Frequency	This item decides CPU over-clocking frequency installed in your system. If the over-clocking fails, please turn off the system power. And then, hold the PageUp key (similar to the Clear CMOS function) and turn on the power, the BIOS will recover the safe default.

Hardware Monitor Page

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

AMIBIOS SETUP – HARDWARE MONITOR (C) 2000 American Megatrends, Inc. All Rights Reserved		
*** System Hardware ***		
Vcore	1.676V	
Vdimm	2.512V	
Vivdd	2.512V	
Vcc5V	4.972V	
SB3V	3.280V	
SYSTEM FAN Speed	0 RPM	
CPU FAN Speed	3515 RPM	
SYSTEM Temperature	30°C/86°F	
CPU Temperature	52°C/125°F	
		ESC : Quit ↑↓←→ : Select Item
		F1 : Help PU/PD/+/- : Modify
		F5 : Old Values (Shift)F2 : Color
		F6 : Load BIOS Defaults
		F7 : Load Setup Defaults

System / CPU 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 which lets you enter a Supervisor password. You can enter no more than six letters or numbers. Press **Enter** after you have typed in the password. A second dialog box asks you to retype the password for confirmation. Press **Enter** after you have retyped it correctly. The password is then required to access the Setup Utility or for that and at start-up, depending on the setting of the Password Check item in Advanced Setup.

Change or Remove the Password

Highlight this item, press **Enter** and type in the current password. At the next dialog box, type in the new password, or just press **Enter** to disable password protection.

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

Using the Motherboard Software

About the Software CD-ROM

The support software CD-ROM that is included in the motherboard package contains all the drivers and utility programs needed to properly run the bundled products. Below you can find a brief description of each software program, and the location for your motherboard version. More information on some programs is available in a README file, located in the same directory as the software.

Note: Never try to install software from a folder that is not specified for use with your motherboard.

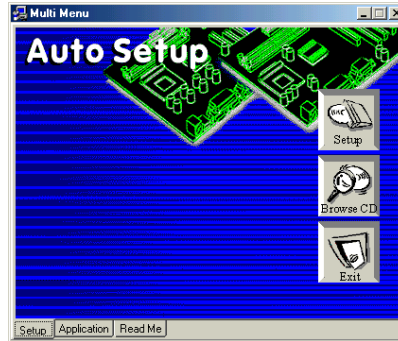
Before installing any software, always inspect the folder for files named README.TXT, INSTALL.TXT, or something similar. These files may contain important information that is not included in this manual.

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

The Auto-install CD-ROM makes it easy for you to install the drivers and software for your motherboard.

Note: If the Auto-install CD-ROM does not work on your system, you can still install drivers through the file manager for your OS (for example, Windows Explorer). Refer to Utility Folder Installation Notes later in this chapter.

The support software CD-ROM disc loads automatically under Windows 98/ME/2000/XP. When you insert the CD-ROM disc in the CD-ROM drive, the autorun feature will automatically bring up the install screen. The screen has three buttons on it, Setup, Browse CD and Exit.



Note: If the opening screen doesn't appear, double-click the file "setup.exe" in the root directory.

Setup Tab

Setup	Click the Setup button to run the software installation program. Select from the menu which software you want to install.
Browse CD	<p>The Browse CD button is the standard Windows command that allows you to open Windows Explorer and show the contents of the support CD.</p> <p>Before installing the software from Windows Explorer, look for a file named README.TXT, INSTALL.TXT or something similar. This file may contain important information to help you install the software correctly.</p> <p>Some software is installed in separate folders for different operating systems, such as DOS, WIN NT, or WIN98/95. Always go to the correct folder for the kind of OS you are using.</p> <p>To install the software, execute a file named SETUP.EXE or INSTALL.EXE by double-clicking the file and then following the instructions on the screen.</p>
Exit	The Exit button closes the Auto Setup window.

Application Tab

Lists the software utilities that are available on the CD.

Read Me Tab

Displays the path for all software and drivers available on the CD.

Running Setup

Follow these instructions to install device drivers and software for the motherboard:

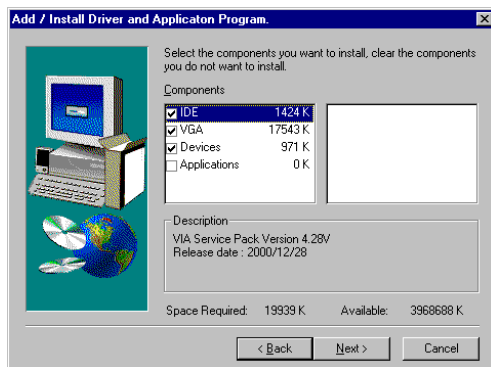
1. Click **Setup**. The installation program begins:



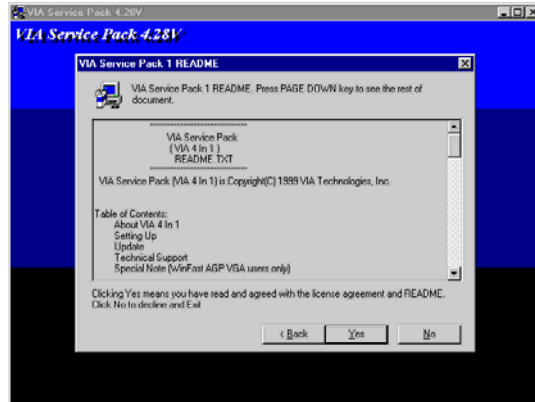
Note: The following screens are examples only. The screens and driver lists will be different according to the motherboard you are installing.

The motherboard identification is located in the upper left-hand corner.

2. Click **Next**. The following screen appears:



3. Check the box next to the items you want to install. The default options are recommended.
4. Click **Next** run the Installation Wizard. An item installation screen appears:



5. Follow the instructions on the screen to install the items.

Drivers and software are automatically installed in sequence. Follow the onscreen instructions, confirm commands and allow the computer to restart a few times to complete the installation.

Manual Installation

Insert the CD in the CD-ROM drive and locate the PATH.DOC file in the root directory. This file contains the information needed to locate the drivers for your motherboard.

Look for the chipset and motherboard model; then browse to the directory and path to begin installing the drivers. Most drivers have a setup program (SETUP.EXE) that automatically detects your operating system before installation. Other drivers have the setup program located in the operating system subfolder.

If the driver you want to install does not have a setup program, browse to the operating system subfolder and locate the readme text file (README.TXT or README.DOC) for information on installing the driver or software for your operating system.

Utility Software Reference

All the utility software available from this page is Windows compliant. They are provided only for the convenience of the customer. The following software is furnished under license and may only be used or copied in accordance with the terms of the license.

Note: These software(s) are subject to change at anytime without prior notice. Please refer to the support CD for available software.

AWARD Flash Memory Utility

This utility lets you erase the system BIOS stored on a Flash Memory chip on the motherboard, and lets you copy an updated version of the BIOS to the chip. Proceed with caution when using this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction. Refer to Chapter 3, *Using BIOS* for more information.

WinFlash Utility

The Award WinFlash utility is a Windows version of the DOS Award BIOS flash writer utility. The utility enables you to flash the system BIOS stored on a Flash Memory chip on the motherboard while in a Windows environment. This utility is currently available for WINXP\ME\2000\98SE. To install the WinFlash utility, run WINFLASH.EXE from the following directory:

\UTILITY\WINFLASH 1.51

PC-CILLIN

The PC-CILLIN software program provides anti-virus protection for your system. This program is available for Windows 2000/ME/98SE/XP and Windows NT. Be sure to check the readme.txt and install the appropriate anti-virus software for your operating system.

We strongly recommend users to install this free anti-virus software to help protect your system against viruses.

This concludes Chapter 4.