

B R A V O M S

P O W E R A N D P E R F O R M A N C E M A D E E A S Y

R A I S I N G T H E B A R F O R C O R P O R A T E D E S K T O P S

As technology continues to advance and become increasingly complicated, it's more important than ever to choose business solutions that are easy to purchase, maintain and manage. Enter Bravo MS, the new family of business PCs from AST[®]. You'll find that these high performance network solutions not only incorporate the leading-edge capabilities that keep you ahead of the competition, but their ingenious design makes them the easiest PCs to use and support.

The Bravo MS is setting a new standard in the world of corporate desktops by offering a full range of Intel[®] Pentium[™] processors with MMX[™] technology and Pentium II processors, unsurpassed graphics, the industry's first NLX push-button FlexChassis design and further advances in environmentally friendly PCs. And that's only half the story. AST knows that hardware alone isn't enough. So we have a fleet of customer programs tailored to your needs. These programs, combined with the highly advanced Bravo MS design, give your company the tools — and the room — it needs to grow.

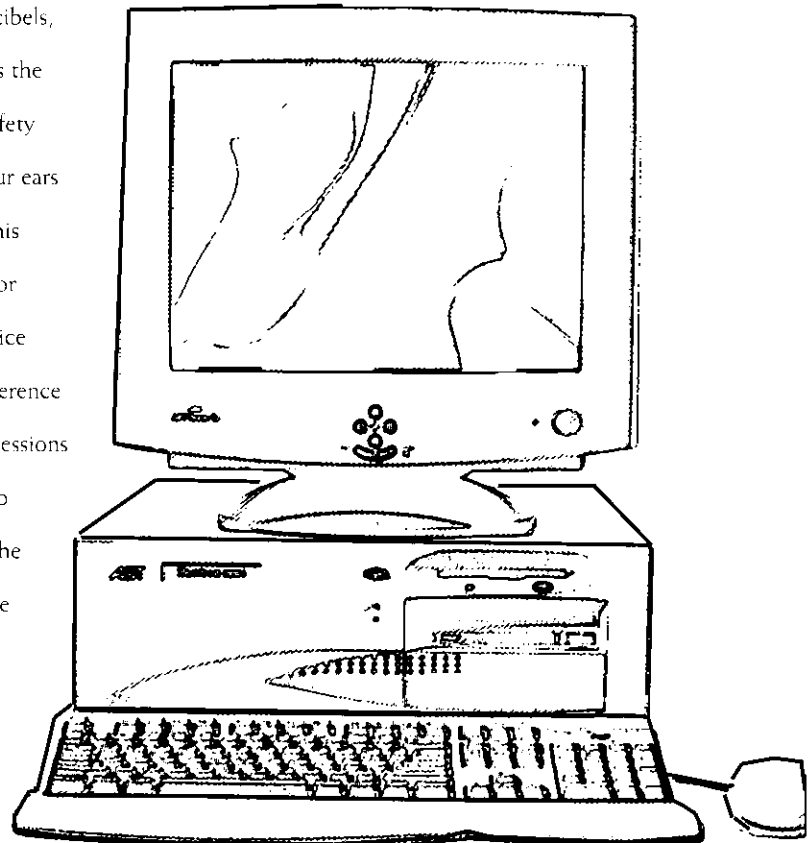
A D V A N C E D T E C H N O L O G Y F O R Y O U A N D Y O U R E N V I R O N M E N T

Once again AST leads the way in environmentally friendly computing. In addition to installing power and money saving suspend/resume modes on all of our new PCs, the Bravo MS is the industry's first "Quiet PC." AST's System Noise Reduction (SNR) technology makes the Bravo MS up to 70% quieter than our competition. By lowering the amount of "white noise" to about 28 decibels, this whisper quiet computer far exceeds the National Institute for Occupational Safety and Health's (NIOSH) guidelines. Your ears might not realize how much better this environmentally sensitive design is for them, but you will undoubtedly notice the difference it makes during conference

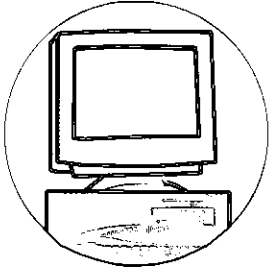
calls, training sessions
or just trying to
concentrate. The
Bravo MS is the

first business PC on the market
to make your office more
peaceful while increasing
your productivity.

AST
COMPUTER



KEY FEATURES



Superior power management, with suspend/resume, soft off and hardware support for wake-on-LAN

A wide range of Intel Pentium II and Pentium processors with MMX technology for power to run all of your demanding applications

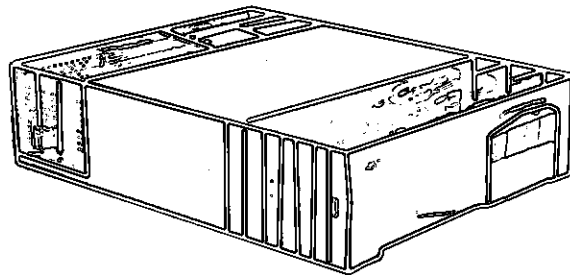
Intel core logic chipsets optimize the use of advanced AGP, SDRAM, ACPI, UltraDMA-33 and MMX technology

ATI 3D Rage II with SGRAM for superior 3D and video texturing for graphics intensive CAD/CAM applications

AST's exclusive System Noise Reduction technology is 70% quieter than competitive PCs

EASY MAINTENANCE AND INNOVATIVE SERVICE

Servicing the Bravo MS is amazingly simple. AST's revolutionary NLX FlexChassis design allows the user to open the system and remove the motherboard with just the push of a button. This ground-breaking design dramatically reduces upgrade and service time. You need only seconds to easily access the six major system components (RAM, CPU, CD-ROM,



floppy drive, hard drive, and video RAM) which reduces your cost of ownership by saving in maintenance costs and downtime.

In the event that you require the talents of a highly trained technician, the Bravo MS is also backed by AST's optional Guardian Care[®] desktop service program. This innovative program features 4-hour on-site response and coverage 24 hours a day, 7 days a week and 365 days a year*. So in the unlikely event that you do have a problem, a specially trained professional will be on-site within four hours to resolve your hardware issue.

BRAND NAME SOFTWARE EXTENDS PRODUCTIVITY

The Bravo MS has exceptional manageability software and support utilities as well. Its innovative desktop management software includes Intel LANDesk 3.0[®], which uses Intel's standard for DMI Asset Management. This provides the user with event alerting, self-help diagnostics and software inventory which reduces downtime, the need for IS support and the cost of ownership all at the same time. McAfee[®] VirusScan[™] protects against all types of viruses, threatening to invade both hardware and software, with an astounding 98% detection rate. McAfee WebScan[™] adds additional protection against the latest infection pathway — files downloaded from the Internet. Finally, the Bravo MS also comes with IBM[®] VoiceType[®] Dictation 3.0** so you can open applications, dictate, send e-mail and more, all by simply speaking into the microphone located on your headset.

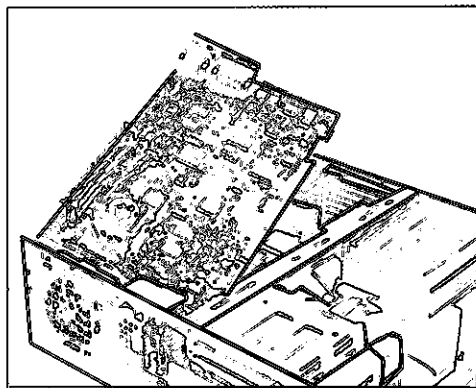
* Contiguous U.S. only ** Pentium-based systems only

P O W E R F O R T O D A Y A N D B E Y O N D

The Bravo MS was designed with the ability to bridge inevitable technological transitions without suffering from technological obsolescence. Whether you're considering the Intel Pentium with MMX technology or the Intel Pentium II processors, AST offers the fastest systems available — all utilizing MMX technology. Bravo delivers superior 3D and video texturing graphics performance using ATI RageII- graphics and SGRAM. You must also factor in features like SDRAM, ACPI, UltraDMA-33, the S.M.A.R.T. detection hard drive technology, the easy access FlexChassis and the SNR 70% noise reduction to really appreciate what the Bravo MS has to offer. In addition, the Pentium II models offer enhanced media technology, and the power to run CAD/CAM data and graphics intensive applications. Plus, they come equipped with an Intel 440LX core logic chipset, the finest available to optimize the Pentium II processor, SDRAM, ACPI and UltraDMA-33. This chipset actually increases overall system performance by 20%. There is even an advanced graphics port (AGP) with 4X increased transfer rates which brings better and faster graphics to the system. This is one PC that is undeniably prepared to meet any of your company's expanding and changing demands.

I N T E G R A T I O N M A D E E A S Y

Because AST products are designed using Intel's NLX form factor and feature industry standard peripherals, the Bravo MS is easily integrated into any network or office. It features an integrated high-speed 10/100 Ethernet adapter for network based applications, and integrated audio for multimedia presentations. Furthermore, all



AST computers are tested for software and operating system compatibility with our industry partners. This means less problems and greater productivity for our customers. Integration capability like this can extend the life of your computer as you introduce new elements into your system. When you consider the advanced technology and the integration capabilities of the Bravo MS, you can see that this desktop is truly an investment for the future.

KEY FEATURES

Industry leading software, including Intel LANdesk, McAfee VirusScan, McAfee WebScan

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) allows your hard drive to communicate its predicted reliability status

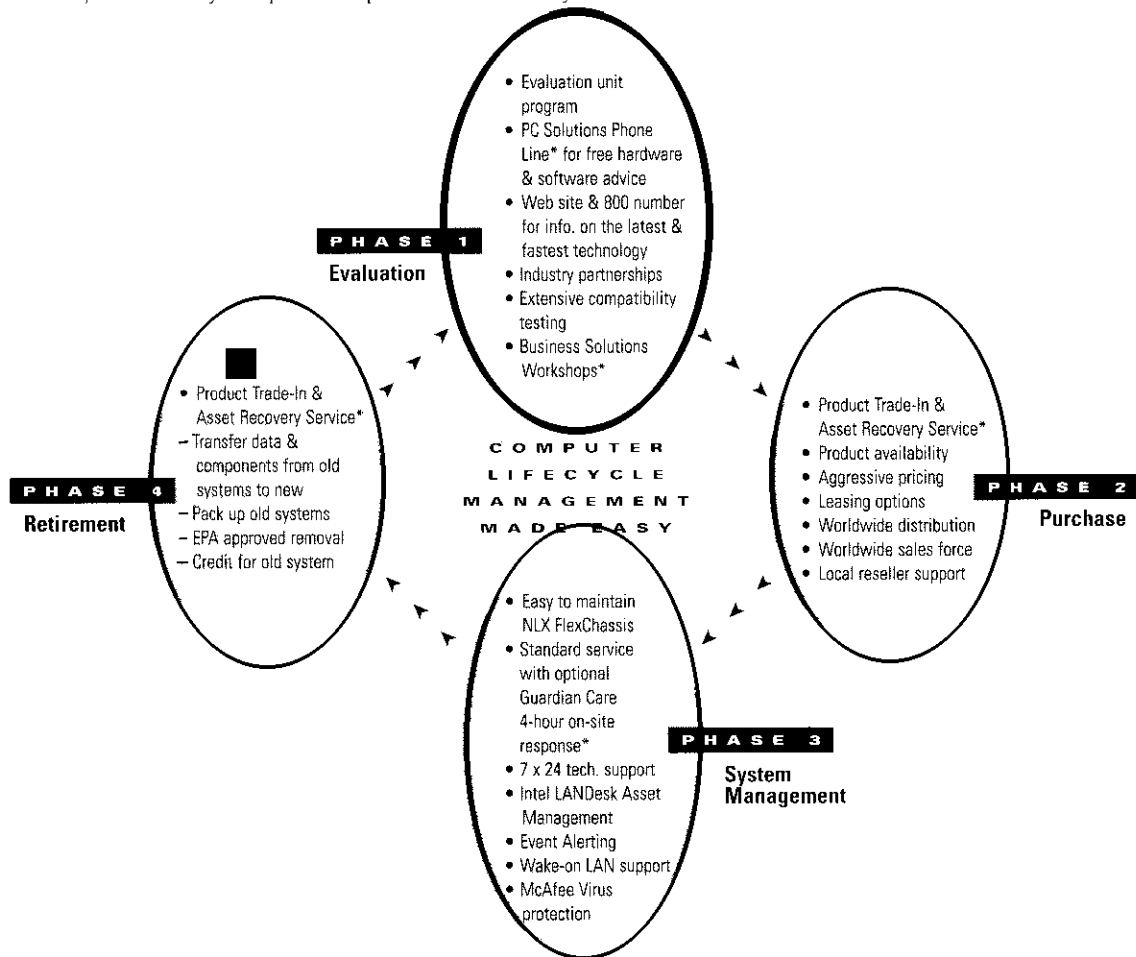
Revolutionary NLX FlexChassis design dramatically reduces upgrade and service times

Sound Blaster -compatible, 16-bit audio with incredible 3D sound effects

Integrated 10/100 Ethernet for a 15% performance enhancement on network-based applications like e-mail and web browsers

MAKE LIFE EASY WITH PROGRAMS TAILORED FOR YOUR COMPANY

As a full service computer company, AST prides itself on being more than just a PC manufacturer. We also provide— services to help your company, regardless of its size, prosper and grow. Our customer programs are tailor made to meet your company's individual needs. So whether you're a huge corporation, a small business, or something in between, AST offers you a partnership with the tools for your success.



WE MAKE IT EASY EVERY STEP OF THE WAY

With our outstanding customer business programs, AST is able to offer you the finest industry support throughout the entire lifecycle of our products. Programs like our free Business Solutions Workshops* and our PC Solutions Phone Line* ensures that you'll make the right systems choices from the beginning. When it comes time to purchase, you'll truly appreciate our low prices, leasing options and worldwide distribution. Furthermore, our unique Product Trade-In and Asset Recovery Service* will save you time and expense as we take care of the retrieval and disposal of your old equipment and in most cases provide you with cash credit for new hardware in the process. From then on, you'll find our technical support is second to none. With our optional Guardian Care Service*, we'll be there for advice and service around the clock. And when it finally does come time for upgrades, our Trade-In and Asset Recovery Program* comes back into play, and our evaluation units provide you with an opportunity to try our future generations of products. You'll find that AST is always available to help your company make the right computing decisions now and in the future. It just couldn't be any easier.

* Contiguous U.S. only

**QUALITY AND RELIABILITY
FROM A WORLDWIDE LEADER**

Bravo MS systems are backed by the shared resources of AST Computer and Samsung Electronics, a \$92 billion company. So when you purchase from AST, you're not only getting a product from one of the largest and most respected personal computer manufacturers in the world, but you're getting it from a company that is dedicated to responding to the needs of our customers. Because at AST, we're working to make life easier for your business.

**WORLDWIDE
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FEATURES	BRAVO MS (DESKTOP)	BRAVO MS (MINI-TOWER)
INTEL PENTIUM II PROCESSORS*	<ul style="list-style-type: none"> • 266 MHz with MMX technology • Intel 440LX AGPset 	<ul style="list-style-type: none"> • 266 MHz with MMX technology • 300 MHz with MMX technology • Intel 440LX AGPset
INTEL PENTIUM PROCESSORS*	<ul style="list-style-type: none"> • 166 MHz with MMX technology • 200 MHz with MMX technology • 233 MHz with MMX technology • Intel 430TX PCIset 	<ul style="list-style-type: none"> • 200 MHz with MMX technology • 233 MHz with MMX technology • Intel 430TX PCIset
DISK DRIVES:	<ul style="list-style-type: none"> • Four drive bays - One 3.5" floppy drive - Two 5.25" external - One 3.5" internal 	<ul style="list-style-type: none"> • Six drive bays - One 3.5" floppy drive - Three 5.25" external - Two 3.5" internal
AST FLEXCHASSIS:	<ul style="list-style-type: none"> • Mid-size • 17.75" W x 5.45" H x 17.25" D • Approx. 28 lbs. 	<ul style="list-style-type: none"> • Mini-tower • 8.02" W x 17.5" H x 17.5" D • Approx. 31 lbs.
EXPANSION SLOTS:	<ul style="list-style-type: none"> • Two 32-bit PCI • One 16-bit ISA • One PCI/ISA shared • One 32-bit AGP (Pentium II only) 	<ul style="list-style-type: none"> • Three 32-bit PCI • Four 16-bit ISA • One 32-bit AGP (Pentium II only)
POWER SUPPLY:	<ul style="list-style-type: none"> • 200 watt (front panel switch) • Suspend/resume mode supported 	<ul style="list-style-type: none"> • 200 watt (front panel switch) • Suspend/resume mode supported

* Models may vary by country

INCLUDED IN THE BRAVO MS SERIES:

CACHE:

- Primary: Integrated 32 KB
- Secondary: Integrated 512 KB

GRAPHICS:

- Integrated PCI-based ATI Rage II+ 3D graphics
- 2 MB SGRAM standard, upgradable to 6 MB
- AGP ready (Pentium II only)
- Maximum resolution: 1600 x 1200 NI, 65K colors @ 76 Hz or 1280 x 1024 NI, 16.7M colors @ 75 Hz

HARD DRIVE MODELS:

- 2.0 GB, 3.0 GB, 4.3 GB
- EIDE UltraDMA-33
- S.M.A.R.T. Drive Technology

MEMORY:

- 32 MB SDRAM
- Three DIMM sockets
- Expandable to 384 MB on systemboard
- 168-pin, non-parity SDRAM
- ECC support

CD-ROM:

- 24X maximum EIDE (Pentium II only)
- 16X maximum EIDE (Pentium with MMX technology)

POWER MANAGEMENT:

- Energy Star compliant
- VESA DPMS compliant
- APM 1.2 compliant
- ACPI support

LAN:

- Integrated Intel 10/100Mbps PCI Ethernet controller
- Magic Packet technology (provides wake-up signal)
- Three LAN LEDs
- Disable via BIOS setup

SOFTWARE:

- AST-CommandCenter™ utilities
- Intel LANDesk 3.0
- McAfee VirusScan
- McAfee WebScan
- AST-SystemGuard™
- AST-AudioWorks™ (LESS AudioRack, ESS AudioRecorder)
- Operating Systems
- Choice of Microsoft® Windows® 95 or Windows NT 4.0
- AST FlashBIOS

AUDIO:

- ESS 1869 (16-bit stereo)
- Sound Blaster compatible
- Spatializer™ 3D Stereo
- Integrated Wavetable Support

STANDARD I/O:

- Two USB ports
- Two serial ports (16550 UART)
- One parallel port (EPP/ECP)
- One PS/2 compatible mouse port
- Audio: line-in, line-out, microphone
- Ethernet

KEYBOARD/MOUSE:

- Standard 101/102-key layout plus three Windows 95 function keys
- Mini DIN connector
- Microsoft mouse

DOCUMENTATION:

- User's manual Microsoft Windows 95 or Windows NT 4.0

HARDWARE MONITORING:

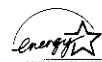
- Temperature, voltage, fan speed, chassis intrusion

BIOS:

- DMI 2.0 compliant
- Soft on/Soft off
- Two level password
- 2 Mbit EPROM, boot block
- Year 2000 compliant
- PC 97 compliant (Pentium II only)

ADVANCED TECHNOLOGIES:

- AST System Noise Reduction (SNR)
- AST FlexChassis



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**AST.
COMPUTER**
Working for your business™

B R A V O M S

T E C H N O L O G Y O V E R V I E W

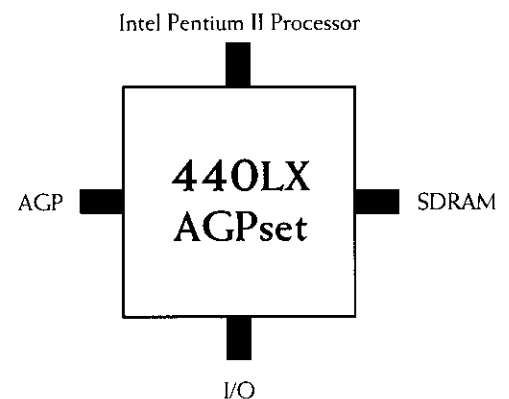
The Bravo MS Pentium II CPU-based business systems incorporate the latest advancements in leading edge technology such as the Intel® 440LX AGPset and the latest, most powerful Intel Pentium II processors. Adding value to this powerful architecture is the AST® NIX FlexChassis which both improves the ease of system serviceability and incorporates System Noise Reduction (SNR) technology for a quieter, more environmentally friendly personal computer. Additional leading edge technology that comes standard on the Bravo MS is ATI® Rage II+ 2D/3D graphics accelerator, UltraDMA-33 hard disk drives, Intel 10/100 Fast Ethernet, SDRAM, and 16-bit audio with 3D effect. Please read below for further information on each of these features.

I N T E L P E N T I U M I I P R O C E S S O R

The Intel Pentium II processor is for those who have little patience for delays. No matter what you do on your business desktop, it can be done faster with the Pentium II processor. The Pentium II processor builds upon its Pentium Pro processor predecessor by incorporating 7.5 million transistors, 32 KB of primary cache, 512 KB of secondary cache, and Intel's MMX™ technology to bring to you the best performance available for 16-bit and 32-bit applications running on advanced operating systems such as Microsoft® Windows® 95 and Windows NT.® Software developers can use the Pentium II with MMX technology to improve full-motion video, enhance colors, and achieve smooth graphics. If you need the freedom to excel, the Intel Pentium II processor is for you.

I N T E L 4 4 0 L X A G P S E T

With the Pentium II processor-based Bravo MS the business user gets full access to Intel's most feature rich core logic chipset, the Intel 440LX AGPset. The 440LX brings a leap forward in functionality to the Bravo MS, complementing the power of its Pentium II processor. Key technologies and features enabled by the 440LX include Accelerated Graphics Port (AGP) technology, Quad Port Acceleration, UltraDMA-33, SDRAM, and ACPI (Advanced Configuration and Power Interface). The impact of these features on the performance of the Bravo MS are highlighted below.



Q u a d P o r t A c c e l e r a t i o n

4 4 0 L X A N D Q U A D P O R T A C C E L E R A T I O N

With the 440LX comes three unique architectural optimizations called Quad Port Acceleration (QPA) that increase overall system concurrency (bandwidth and performance), elevating the computing experience. QPA includes Direct Connect AGP, Dynamic Distributed Arbitration and Multistream Memory Access.

F O R P E N T I U M ® I I P R O C E S S O R - B A S E D S Y S T E M S

A C C E L E R A T E D G R A P H I C S P O R T (A G P)

Perhaps the most exciting technology brought forth by the new Bravo MS systems is AGP. The Accelerated Graphics Port (AGP) brings faster and better graphics to the Bravo MS. The best performance will be seen in AGP optimized applications, but non-AGP optimized applications will also benefit. AGP uses a connector similar to the PCI bus, with 32-bits of multiplexed address and data. While the PCI bus, clocked at 33 MHz, supports a maximum 132 MB/s transfer rate, an AGP point-to-point connection operating at 66 MHz yields a surprising

528 MB/s peak transfer rate. Although throughput may vary depending on application, it will usually obtain about 50~80% of peak rate in real world sustainable transfers. Note that AGP cards that support 133 MHz transfer rates are also supported on the Bravo MS.

A unique feature of AGP is that it can dynamically access unused main system memory — in addition to using its own dedicated memory. Fully-implemented AGP graphics chips can exploit main memory directly (known as DIME for DIrect Memory Execute) for the complex operation of texture-mapping. Other key benefits of AGP are increased graphics bandwidth (at least 4X), increased overall system bandwidth (due to graphics I/O being removed from the PCI bus), and the equivalent of an extra expansion slot.

I N T E G R A T E D P C I 2 D / 3 D G R A P H I C S — A T I R A G E I I +

For those satisfied with standard PCI graphics, the Bravo MS's integrated ATI Rage II+ delivers superior 3D features and performance including perspective correct texturing, Gouraud shading and a host of other special 3D effects. Additionally, superior 2D acceleration is achieved through an advanced architecture that is optimized for SGRAM. On the Bravo MS graphics memory can be expanded to 6 MB of SGRAM.

A S T N L X F L E X C H A S S I S

With the push of a button the AST's FlexChassis allows easy access to the inside of your computer. This tool-less entry chassis surrounds the AST NLX system board which slides out of the chassis with a flip of a lever. The design of the chassis allows for full-length PCI, ISA, and AGP cards and easy access to any space on the system board, especially important when upgrading system or graphics memory. This tool-less chassis will dramatically reduce the time spent upgrading and servicing your computer, making system maintenance an ease and lower the total cost of ownership.

S Y S T E M N O I S E R E D U C T I O N

As systems have become more powerful and faster, system noise has become more of an issue. AST's System Noise Reduction (SNR) technology addresses a variety of noise issues with a variety of solutions. Quieter, variable-speed fans are used to cool systems. Sound dampening materials are used to encase hard disk drives, reducing especially irritating high-pitched noises. Also, the location of fans and vents are designed to produce the best combination of noise reduction and cooling.

S D R A M D I M M S

Another feature optimized by the 440LX is SDRAM. SDRAM offer the fastest and most efficient system memory performance on the market. The Bravo MS uses 120 MHz SDRAM with a cycle time of 12 nanoseconds — typical EDO RAM has a cycle time of 60 nanoseconds. SDRAM is the first DRAM technology designed to synchronize itself with the processor. SDRAM (either ECC or non-ECC) is just another feature aimed at increasing the performance of the Bravo MS.

U L T R A D M A - 3 3 W I T H S . M . A . R . T . A N D C R C

Yet another major feature enabled by the 440LX is UltraDMA-33 technology, the latest in hard disk drive technology and standard on all Bravo MS systems. The burst transfer rate of an UltraDMA-33 hard disk drive is 33 MB/s which is more than double that of its predecessor, the PIO Mode 4 IDE hard disk drive. An additional feature on Bravo MS hard disk drive is S.M.A.R.T. (System Monitoring Analysis and Reporting Technology), an algorithm that will send a signal via LANDesk[®] if your hard disk drive exhibits signs of impending failure. Also included is a feature call CRC (Cyclical Redundancy Checking) which helps to maintain data integrity.

INTEGRATED INTEL 10/100 ETHERNET

Need to get connected to a network? Look no further. Integrated into the Bravo MS system board is Intel's PCI based 10/100 MB Ethernet which utilizes a 32-bit bus master architecture to provide the right balance of high throughput and low CPU utilization for optimal efficiency. The integrated Intel 10/100 Ethernet will automatically switch between 10 MB Ethernet and 100 MB Fast Ethernet depending on your network. Furthermore, the Bravo MS supports a Wake-on-LAN feature for improved network manageability.

INTEGRATED 16-BIT AUDIO

For those presentations with sound, for sound clips off the Internet, or for reviewing multimedia presentations from a CD-ROM, the Bravo MS provides its user with integrated rich Sound Blaster® compatible 16-bit audio with 3D effect and a high quality FM synthesizer. Through the use of multi-channel virtualization, a 6-speaker (Dolby® AC-3) can be recreated using just two computer speakers, bringing a new world of sound effects into any business presentation. The 3D solution produces an incredible surround sound effect without compromising the quality of the audio stream. As video conferencing technology and audio over the Internet become mainstream, audio streaming integrity will become very important. Your Bravo has the technology for the future.

SYSTEM FEATURES	BRAVO MS (Desktop)	BRAVO MS (Mini-Tower)
INTEL PENTIUM II PROCESSOR	<ul style="list-style-type: none"> • 266 MHz 	<ul style="list-style-type: none"> • 266 MHz • 300 MHz
DISK DRIVES	<ul style="list-style-type: none"> • Four Drive Bays <ul style="list-style-type: none"> — One 3.5" floppy drive — Two 5.25" external — One 3.5" internal 	<ul style="list-style-type: none"> • Six Drive Bays <ul style="list-style-type: none"> — One 3.5" floppy drive — Three 5.25" external — Two 3.5" internal
AST NLX FLEXCHASSIS	<ul style="list-style-type: none"> • Desktop • 17.75" W x 5.45" H x 17.25" D (45.0 cm W x 13.8 cm H x 43.8 cm D) • Weight approx. 28 lbs (12.5 kg) 	<ul style="list-style-type: none"> • Mini-Tower • 8.02" W x 17.5" H x 17.5" D (20.3 cm W x 44.5 cm H x 44.5 cm D) • Weight approx. 31 lbs (13.9 kg)
EXPANSION SLOTS	<ul style="list-style-type: none"> • Two 32-bit PCI • One 16-bit ISA • One PCI/ISA shared • One 32-bit ACP 	<ul style="list-style-type: none"> • Three 32-bit PCI • Four 16-bit ISA • One 32-bit ACP

INCLUDED IN BRAVO MS PENTIUM II CPU - BASED SYSTEMS

PROCESSOR

- Intel Pentium II processor
- MMX technology standard
 - Single Edge Cartridge (SEC) connector technology

CACHE

- Primary: integrated 32 KB
- Secondary: integrated 512 KB

CORE LOGIC

- Intel 440LX ACPset

MEMORY

- 32 MB of 120 MHz, 168-pin, non-parity SDRAM standard
 - Three industry standard DIMM sockets
 - Expandable to 384 MB on system board
 - Parity and ECC support

OPERATING SYSTEM & CERTIFICATION

- Choice of Microsoft Windows 95 or Windows NT Workstation 4.0
- Certified Operating Systems: Windows 95, Windows NT Workstation 4.0, OS/2, Novell® Netware® (File Server and Workstation) & SCO OpenServer

GRAPHICS SUBSYSTEM

- Integrated PCI ATI Rage II+DVD 64-bit 2D/3D graphics
- 2 MB SGRAM standard
 - upgradable to 6 MB via industry standard SO-DIMM
- High quality DVD/MPEG-2 playback
- 200 MHz internal DAC
- Maximum resolution: 1600 x 1200 NI, 65K colors @ 76 Hz or 1280 x 1024 NI, 16.7 M colors @ 75 Hz

ACCELERATED GRAPHICS PORT (AGP)

- Support for NLX form AGP cards
- 133 MHz point-to-point connection with 440LX AGPset

DRIVES & HARD DISK CONTROLLER

- 3.5" 4.3 GB EIDE UltraDMA-33 hard disk drive standard with S.M.A.R.T. (System Monitoring Analysis and Reporting Technology)
 - Typical Seek Time: <10 ms
 - Rotational Speed: 5400 RPMs
- Support for up to four EIDE/UltraATA devices
- 3.5" 1.44 MB Floppy Disk Drive
- 5.25" 24X Max-speed EIDE CD-ROM drive

AUDIO

- Integrated ESS 1869 (16-bit stereo) audio
 - Sound Blaster compatible with Spatializer 3D stereo effect

HARDWARE MONITORING

- Temperature, voltage, fan speed & chassis intrusion

POWER MANAGEMENT

- 200 watt power supply (front panel switch)
- Energy Star compliant
- VESA DPMS compliant
- Suspend/Resume
- APM 1.2 compliant
- Soft on/Soft off
- ACPI support

NETWORK INTERFACE CARD

- Integrated Intel 82557 10/100 Mbps PCI Ethernet controller
 - Disable via BIOS
- Magic Packet Technology (provides wake-up signal) with 5V standby power support

SOFTWARE

- AST-CommandCenter™
 - Intel LANDesk
 - McAfee® VirusScan™
 - McAfee WebScan™
 - AST SystemGuard™
 - ESS AudioRack
 - ESS AudioRecorder
- FlashBIOS
 - DMI 2.0 compliant

STANDARD REAR I/O

- Two USB ports
- Two serial ports
- One parallel port
- One PS/2 compatible mouse port
- One RJ45 Ethernet connector
- Three audio jacks: line-in, line-out & mic-in

KEYBOARD/MOUSE

- Standard 101/102-key layout plus three Windows 95 function keys
- Mini DIN connector
- Microsoft mouse

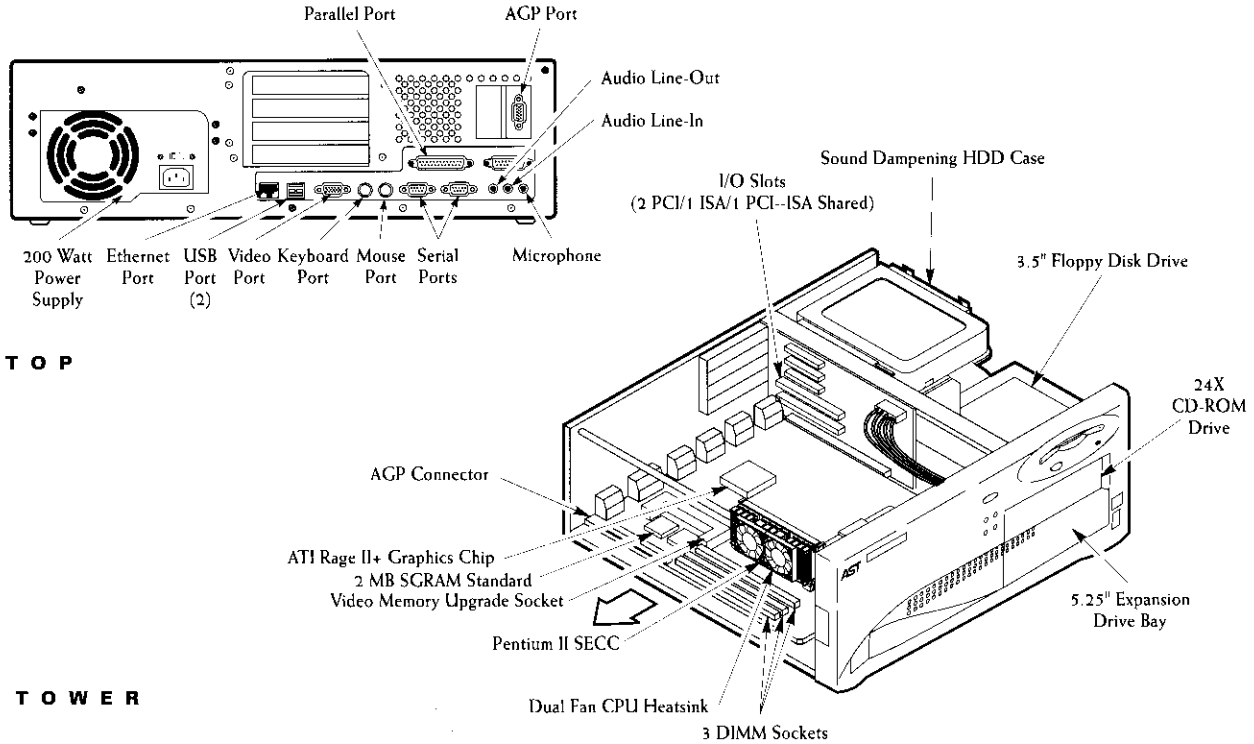
DOCUMENTATION

- AST User's Manual
- AST Getting Started Guide
- Microsoft Windows 95 or Windows NT 4.0 Manual

ENVIRONMENTAL CONDITIONS

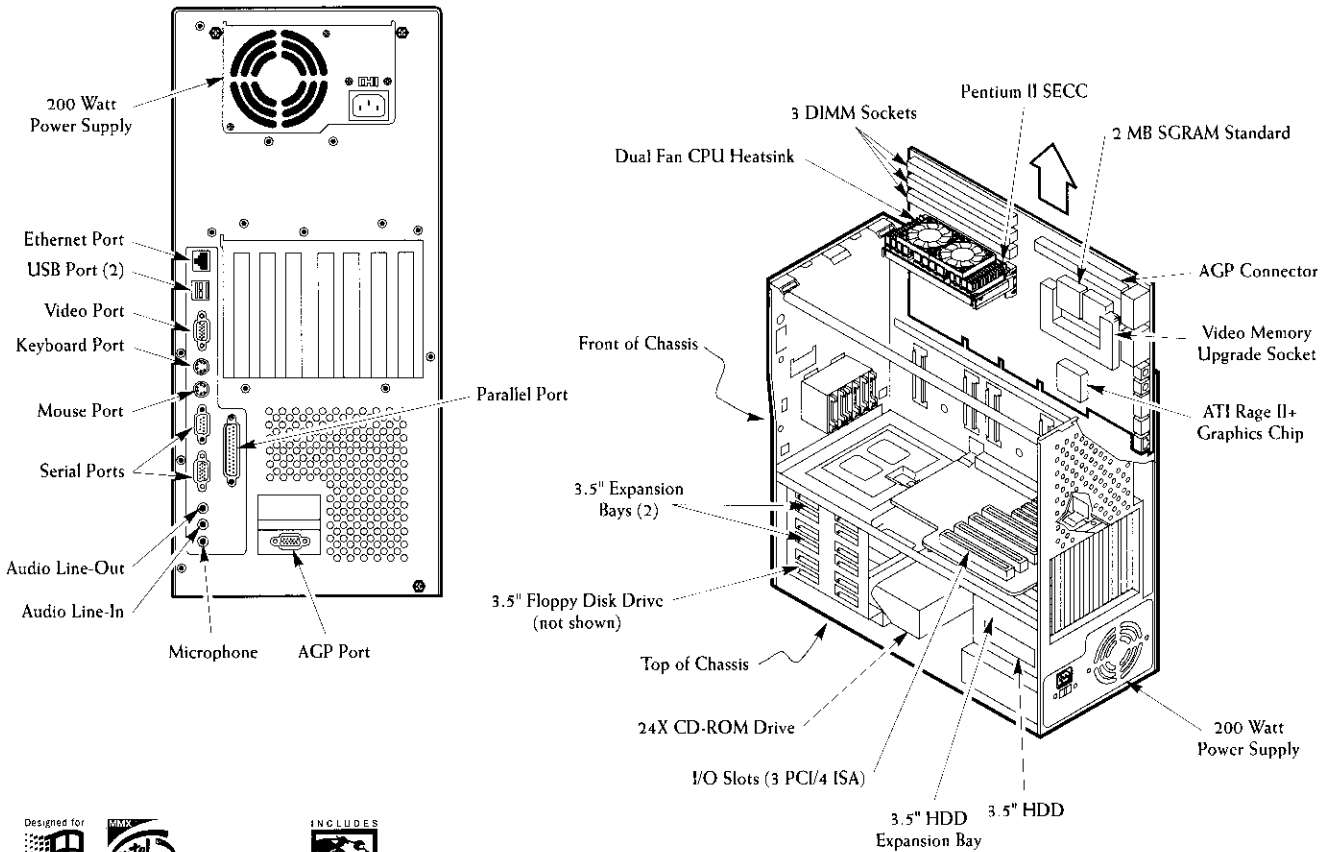
- Operating temperature: 0°C to 55°C
- Non-Operating: -40°C to 70°C

AST NLX FLEX CHASSIS



DESKTOP

MINI TOWER



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AST® BRAVO MS 6300, 6266 & 6233 (Featuring Intel® Pentium® II Processors) HARDWARE FEATURES, ADVANTAGES AND BENEFITS CHART

<u>Features</u>	<u>Functions</u>	<u>Advantages</u>	<u>Benefits</u>
<p>Intel 300MHz, 266MHz & 233MHz Pentium® II Processors with 512KB L2 cache</p>	<p>The Pentium II provides the power of the Pentium Pro, it adds MMX™ technology and doubles the L1 cache to 32KB. All AST Bravo Pentium II systems will ship with 512KB of L2 cache, twice as much as a typical Pentium Pro system.</p>	<p>Based on the iCOMP 2.0 Index the 266MHz Pentium II and 233MHz Pentium II processors outperform the Pentium Pro 200MHz processor by 37.7% and 21.4%, respectively.</p>	<p>Common 32-bit applications such as Microsoft® Office 95 will show significant performance increases. In addition to improving your productivity, it provides the headroom for tomorrow's applications.</p>
<p>Intel 440LX AGPset</p>	<p>A new Intel designed core logic that enables the use of advanced technology such as AGP, SDRAM, ACPI, and UltraDMA-33.</p>	<p>Better system integration between components and the core logic which translates into improved system performance.</p>	<p>In addition to increased performance, the chipset enables new power management features to allow a desktop user to have the same "suspend/resume" mode as they have on their notebook.</p>
<p>AGP (Accelerated Graphics Port)</p>	<p>A new graphics port enabled by the new 440LX core logic. The AGP implementation provides a dedicated point-to-point connection between AGP and the 440LX core logic, enabling a transfer rate of >500MB/s.</p>	<p>With a dedicated point-to-point AGP connection the PCI bus is no longer burdened by graphics. AGP provides for scalable graphics and will use main system memory if necessary to store textures.</p>	<p>Your system's "effective bandwidth" is dramatically improved. With AGP the PCI bus is freed for use with non-graphics related peripherals such as HDD, CD-ROM, Ethernet, etc.</p>
<p>32 MB SDRAM Standard</p>	<p>When combined with the 440LX core logic, SDRAM performance surpasses EDO DRAM for the first time on a Pentium II based system.</p>	<p>By utilizing DIMM packaging, you can populate your system with more memory. Furthermore, SDRAM DIMMs are the standard memory for new personal computers.</p>	<p>Highest memory bandwidth to support enhanced media-rich performance and reduced memory access times.</p>

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Features

Functions

Advantages

Benefits

UltraDMA33 S.M.A.R.T. HDD

UltraDMA-33 represents the latest evolution of IDE hard drive technology. The burst transfer rate has been increased from 16.7MB/s to 33 MB/s. Cyclical Redundancy Checking (CRC) provides increased data integrity. Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) allows your hard drive to communicate its predicted reliability status.

An UltraDMA-33 HDD provides about a 10% performance increase in disk-oriented benchmark tests. Increasing the transfer rate brings the effective transfer rate of the system's bus and a driver's internal data rate into balance. Without risking data loss, administrators can proactively manage component replacement.

Your system will boot faster, and applications requiring long sequential transfers (such as multimedia-enhanced presentations) will run smoothly. System downtime, productivity loss, and even loss of valuable data can be prevented through the combined use of S.M.A.R.T. drives and Intel LANDesk® software.

ATI® PCI Rage II+ Graphics

The 3D Rage™II+DVD delivers superior 3D features and performance including perspective correct texturing, video texturing, Gouraud shading and a host of other 3D special effects. Superior 2D acceleration is achieved through an advanced architecture which is optimized for SGRAM.

The ATI Rage™II+DVD offers perhaps the best combination of value and performance. As an integrated solution the Rage™II+DVD brings you excellent 2D and 3D performance at a cost lower than a typical 2D add-on card.

Graphics intensive applications such as Microsoft PowerPoint, and Excel will run noticeably faster. Web-based Java and VRML programs can take advantage of the 3D features to display stunning images. To allow maximum flexibility, users can expand their memory to 6MB of SGRAM.

SGRAM Video Memory

SGRAM refers to synchronous graphics RAM, a type of single-ported, high-performance graphics memory that delivers performance close to the level of expensive dual ported VRAM and WGRAM, in a highly cost-effective single ported memory configuration.

2MB of SGRAM delivers the performance of 4MB of EDO for much lower cost than EDO or other graphics alternatives.

Up to 25% faster graphics performance can be achieved when running Windows 95 at 1024 X 768 X 256 colors (compared to EDO-based video memory configurations). Applications such as PowerPoint, Quicktime and ACAD will derive the maximum benefit from this feature.

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AST® BRAVO MS 6300, 6266 & 6233 (Featuring Intel® Pentium® II Processors) HARDWARE FEATURES, ADVANTAGES AND BENEFITS CHART

<u>Features</u>	<u>Functions</u>	<u>Advantages</u>	<u>Benefits</u>
ATI® Multi-Media Channel Connector	Use the ATI Multimedia Channel Connector with a TV Tuner module, H/W MPEG II module, or Video Capture module for an upgrade path to the future.	Dramatically extend your computer's life by enhancing its functionality easily and inexpensively.	Provides an easy and rapid path to upgrade your system. If you're a stock broker, increase your productivity by monitoring stock prices in a windows on your desktop via the TV TUNER module while performing other computer related tasks at the same time.

Integrated Intel® 10/100MB Ethernet	Integrated Intel networking, utilizing 32-bit bus master architecture to provide the right balance of high throughput and low CPU utilization for the best efficiency. Also introducing Adaptive Technology.	You'll see a 15% performance enhancement over other network cards, on both standard Ethernet or Fast Ethernet while minimizing CPU utilization and boosting throughput.	Network based applications such as E-mail, Web browsers, Group management software, etc. will be able to communicate faster and more efficiently over the network. Furthermore Adaptive Technology provides the ability to update microcode and adapt to specific environments such as Windows NT®, Windows® 95, DOS ODI, or heavy-traffic networks!!
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Two USB Ports	The Universal Serial Bus is an Intel supported standard which can operate at two speeds, 12Mbps for high bandwidth devices and 1.5Mbps for lower-speed devices. USB can support up to 127 devices on one port as well as supply power to connected devices.	USB will increase the ease of adding new devices to your PC. The USB port, being "universal", eliminates the need for multiple connectors. USB allows peripherals to act as hubs so that up to 127 devices can be connected to your PC via one cable with one USB port. The added benefit of this is reduced cable clutter.	USB will lessen the time it takes to connect and set-up devices on your PC. When a device is connected USB automatically senses what driver and bus resources are needed which will save time and frustration. USB is also plug-and-play: devices can be attached and detached while system is running.
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AST® BRAVO MS 6300, 6266 & 6233 (Featuring Intel® Pentium® II Processors) HARDWARE FEATURES, ADVANTAGES AND BENEFITS CHART

<u>Features</u>	<u>Functions</u>	<u>Advantages</u>	<u>Benefits</u>
Integrated 16-bit Audio	Sound Blaster® compatible 16-bit stereo audio, with 3D audio effects, and high quality FM synthesizer.	Through the use of multi-channel virtualization, a 6-speaker (Dolby AC-3) sounds system can be recreated using just 2 speakers.	Business presentations can be enhanced with audio clips. Allows your system to be "video-conferencing ready". You can also take advantage of the multimedia-rich internet web sites.
Hardware Monitoring	Integrated chip provides the capability to monitor voltage, fan speed, and temperature of the system. This data is read by LANDesk® client manager, which will alert the administrator to any abnormal conditions.	Rather than wait for a component failure or environmental condition to cause the system to fail, administrators can now proactively manage the PC's under their control.	Users will not suffer from unexpected downtime. Airflow problems created by either inadequate cooling space around the PC, (which cause the system to heat up and accelerate component failure) can now be detected and rectified. Power supply output can be monitored for the correct voltage range.

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AST® BRAVO MS 6300, 6266 & 6233 (Featuring Intel® Pentium® II Processors) SOFTWARE FEATURES, ADVANTAGES AND BENEFITS CHART

<u>Features</u>	<u>Functions</u>	<u>Advantages</u>	<u>Benefits</u>
AntiVirus McAfee® VirusScan™	VirusScan offers protection against all types of viruses, including Word/Excel macros, boot-sector infections, encrypted viruses, multi-partite, stealth, polymorphic, Visual Basic 5.0, and Office 97 file formats.	Improving the integrity of the end-user system and preventing their system from proliferating viruses. It also offers extensive file type support providing maximum protection to the user.	McAfee's VirusScan because they have a 68% worldwide market share as they have the 98% detection rate, the highest amongst its competitors and has multi-platform support including DOS®, Windows®, Macintosh®, UNIX® and OS/2®.
AntiVirus McAfee WebScan™	WebScan is designed to provide an additional layer of virus protection against the latest medium of system infections: the internet. It works with the most popular Web browsers and E-mail packages.	An additional layer of protection is achieved as WebScan scans all files that are downloaded from the Internet, as well as attachment files in most of your favorite E-mail applications.	This software complements VirusScan and provides an additional layer of protection against viruses that cause system trouble and down-time and hurt productivity.
System Management LANDesk® 3.0	Provides the user with self-help diagnostics, including a PC health meter, local alerting of potential problems, hard drive monitoring using SMART drive technology), thermal monitoring, chassis intrusion alerts, voltage monitoring and software inventory.	It uses DMI (Desktop Management Interface) standard to manage components (network interface cards, memory, printers, software applications, etc.) within a PC system.	Targets the reduction of system down time by limiting the need for IS support. LANDesk makes the user more self-reliant and reduces the cost of PC ownership.

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