

IBM IntelliStation POWER 265 workstation



UNIX operating system from IBM. It features one or two proven, reliable 64-bit POWER3™-II copper processors running at 450MHz, with 4MB of ECC L2 cache per processor. Memory can be expanded from 512MB to 8GB. There are two integrated 10/100 Mbps Ethernet controllers, as well as three serial ports and one parallel port for exceptional network connectivity and flexibility. Also integrated into the system are internal and external Ultra3 SCSI controllers for high performance and direct access to high-capacity peripherals.

Highlights

- **Powerful one- or two-way UNIX® workstation with exceptional price/performance for high-end design and analysis applications**
- **Ultra-fast GXT4500P and GXT6500P 3D accelerators for advanced visualization and rapid image manipulation**
- **Performance follow-on to existing IBM RS/6000® 3D graphics workstations**

The IBM IntelliStation™ POWER 265 combines superior performance, reliability and manageability in a flexible, affordable package. In particular, it is an excellent choice for running mid- to high-end Mechanical Computer Aided Design (MCAD), front-end graphic processing and other floating-point-intensive business and technical applications.

POWER up application performance

The POWER 265 is the first workstation in the IBM IntelliStation line to harness the advantages of advanced POWER microprocessors and AIX® 5L™, the high-performance

The system also provides one of the highest internal expandability in this class of workstation. The compact, desktop tower features a diskette drive, an internal hard-drive bay and two additional bays for any combination of CD-ROM, DVD-RAM, tape or disk. Internal storage can be expanded to more than one terabyte with the addition of up to six optional hot-swappable, front-accessible drives. Five PCI slots support the latest 64-bit, 50MHz adapters as well as providing backward compatibility for older 32-bit cards.

A graphic example

The POWER 265 supports another evolution of IBM 3D graphics technology — the POWER GXT4500P and GXT6500P with 128MB unified frame buffer and digital interface support. These high-performance graphics accelerators, also based on industry-leading copper-chip technology from IBM, deliver up to a 20 percent performance boost compared to the previous generation of IBM adapters, and at a lower price. Both the GXT4500P and GXT6500P feature analog and digital output, 24-bit double buffer with resolutions up to 2048 x 1536 at 60 Hz and Application Programming Interface (API) support for OpenGL 1.2.1, graPHIGS and X11. Advanced 3D features include an onboard geometry accelerator, hardware lighting, 24-bit Z-buffer, 4/8-bit overlay, 8-bit double buffered Alpha, 8-bit stencil, up to 110MB texture memory, dual texture and 3D texture. The GXT6500P has an additional geometry and lighting processor that further increases performance.

The combination of the POWER 265 and these advanced accelerators provides outstanding performance for the CATIA suite of MCAD software.

Up and running

But a high-performance workstation is of little use if it's down or if managing it drives up the cost of computing. That's why the POWER 265 incorporates technology from Project eLiza™, an IBM blueprint for autonomic, self-managing systems. Its goal is to use technology to manage technology, creating an intelligent IT infrastructure that minimizes complexity. This enables increased utilization of technology without the spiraling pressure on critical skills, software and service/support costs.

For example, the POWER 265 includes an integrated service processor — a computer within a computer — that constantly monitors the system's vital signs. In the event of a malfunction, the service processor is capable of “calling home” by automatically dialing out to an IBM service center, often before any problem is apparent to users or system administrators. This systems management function allows many problems to be corrected and system function restored remotely without interruption.

The service processor helps in the analysis of a system that will not boot. Support personnel may remotely log

into the POWER 265 to review error logs and perform remote maintenance.

The service processor also enables First Failure Data Capture, which virtually eliminates the need to recreate intermittent errors — a time-consuming, inefficient and sometimes impossible process.

To further enhance availability and manageability, these workstations incorporate IBM Light Path Diagnostics™, which places LEDs near critical components to provide lighted guidance so problems may be quickly diagnosed and resolved — the lights even stay on if the system is shut down. Light Path also helps prevent downtime by identifying key components that are in danger of failing. These capabilities can be extremely valuable when supporting remote systems without full-time, on-site IT staff.

Other advanced features include internal RAID capability for even higher levels of system availability. The power supply is hot-plug with a second power supply optionally available. Redundant, hot-plug cooling fans are standard.

IBM IntelliStation POWER 265 at a glance

Minimum configuration

Microprocessor	450 MHz POWER3-II
Level 1 (L1) cache	64KB data/32KB instruction
Level 2 (L2) cache	4MB
RAM (memory)	512MB
Memory bus width	64-bit
Internal disk drive	18.2GB Ultra SCSI
Disk/media bays	Four (one available)
Expansion slots	Five PCI
PCI bus width	32- and 64-bit
Memory slots	16 ECC DIMM slots
Standard features	Integrated ports: Tablet, keyboard, mouse, dual 10/100 Mbps Ethernet internal/external Ultra3 SCSI, three serial ports, one parallel port 48X CD-ROM drive Service processor 1.44MB 3.5-inch diskette drive

Operating system	AIX 5L Versions 5.1/5.2 or AIX Version 4.3.3
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System expansion

Processor	1- to 2-way
RAM	Up to 8GB
DASD	Up to 1027.6GB internal storage

Power requirements	Universal 110/220V power supply
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System dimensions	16.8" H x 8.5" W x 32" D (426mm x 215mm x 812mm), 35.5 kg (78.0 lbs)*
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Warranty	24x7, on-site for one year (limited) at no additional cost
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* Weight will vary when disks, adapters and other peripherals are installed.

IBM IntelliStation POWER 265 features and benefits

Feature	Benefits
Copper-based POWER3-II microprocessors	<ul style="list-style-type: none">• Greatly expand performance levels for symmetric multiprocessing (SMP) enabled applications• Improve reliability while reducing the heat produced
64-bit system architecture	<ul style="list-style-type: none">• Supports larger amounts of memory so applications can keep more information accessible in fast-access memory (less need to retrieve data from online storage; allowing applications to run faster)
One or two processors per system	<ul style="list-style-type: none">• Provide flexible growth in computing power
4MB ECC L2 cache per processor	<ul style="list-style-type: none">• Provides increased performance and greater reliability
Up to 8GB ECC SDRAM memory	<ul style="list-style-type: none">• Allows faster performance and exploitation of 64-bit addressing for large database or scientific and technical modeling applications
Five PCI adapter slots	<ul style="list-style-type: none">• Provide growth options for significantly increased capacity• Support many popular expansion adapters
Light Path Diagnostics	<ul style="list-style-type: none">• Provides lighted guidance for quick problem identification and resolution• Offers predictive analysis of key components
Built-in service processor	<ul style="list-style-type: none">• Continuously monitors system operations and takes preventive or corrective actions for quick problem resolution and high system availability• Allows diagnostics and maintenance to be performed remotely
First Failure Data Capture	<ul style="list-style-type: none">• Provides error information in real-time• Virtually eliminates the need to recreate intermittent errors
Hot-swappable disk bays (optional)	<ul style="list-style-type: none">• Provide greater system availability and smooth growth by allowing swapping or adding of disk drives without powering down the system
Internal RAID capability (optional)	<ul style="list-style-type: none">• Spreads data across multiple drives• If any individual drive fails, data can be recreated• Increases system availability and reduces downtime
Redundant hot-plug power supply (optional) and cooling subsystems (standard)	<ul style="list-style-type: none">• Enhance system availability since cooling fans and power supplies can be changed without interrupting operations• Provide backup power and cooling if primary unit fails
AIX operating system	<ul style="list-style-type: none">• Delivers maximum throughput for mixed workloads without the need for complex system configuration or tuning• Provides upward binary compatibility to help preserve software investments• Extends application choices with Linux® Affinity

The AIX advantage

Intellistation 265 systems are matched with AIX 5L — the advanced, open, scalable UNIX operating system from IBM. Providing real value in reliability, availability and security, AIX is tuned for e-business application performance and is recognized as state-of-the-art in systems and network management.

AIX delivers Java™ technology, Web performance and scalability enhancements for managing single servers to large, complex e-business installations. Web-based remote management tools control the system and monitor key resources such as adapter and network availability, file system status and processor workload. AIX 5L incorporates Workload Manager, which can help ensure that critical applications remain responsive even during periods of peak system demand. AIX runs across all IBM **@server** pSeries™ and IBM RS/6000® servers for greater compatibility and investment protection.

The Intellistation 265 workstation represents the IBM **@server** commitment to true application

flexibility through open standards. In addition to including enhanced Java scalability and performance, AIX 5L provides Application Programming Interfaces (APIs) that allow popular Linux and Open Source applications to run on AIX with a simple recompilation. The AIX Toolbox for Linux Applications provides compilers, utilities, editors, debuggers and other application development tools to aid in this recompilation.

Summary

The IntelliStation POWER 265 defines an excellent price/performance standard for UNIX workstations. The combination of exceptional processing power, high memory capacity, remarkable storage capacity and low price make this workstation the ideal choice for traditional mid- to high-end engineering applications.

In particular, the outstanding performance of the IntelliStation 265 and IBM leadership and experience make it an excellent choice for running the entire CATIA suite. It's also well suited for other MCAD design and analysis applications such as Pro/ENGINEER, Deneb and

Engineering Animation. The IntelliStation 265 also brings new levels of performance to CAE applications such as Ansys, Fluent and KS and EDA applications such as Cadence, FTL Sys and Avant.

But more than that, the IntelliStation 265 also incorporates leading-edge technology from Project eLiza to deliver new levels of reliability and manageability. It's a combination that simply can't be matched.

For more information

To learn more about the IBM IntelliStation POWER 265 workstation, contact your IBM marketing representative or IBM Business Partner or visit the following Web site:

ibm.com/servers/eserver/pseries/hardware/workstations



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