



UNIX Workstations Facts and Features

September 28, 2004



GXT4500P



GXT6500P



**IntelliStation
POWER 275**

Product Line	IBM® @server® pSeries® 630	IntelliStation® POWER 275
Machine type	7028-6E4	9114-275
System packaging	deskside	deskside
Microprocessor type	64-bit, POWER4+™	64-bit POWER4+
# of processors/system	1 or 2	1 or 2
Clock rates available	1.2 GHz / 1.45 GHz	1.0 GHz ⁿ / 1.45 GHz
System memory (standard - maximum)	1GB - 32GB ^a	1GB - 16GB ^a
Data/instruction (L1) cache	32KB - 64KB ^b	32KB - 64KB ^b
Level 2 (L2) cache	1.5MB	1.5MB ^b
Level 3 (L3) cache	8MB	8MB
Reliability, availability, serviceability		
Chipkill™ memory	X	X
Service processor	X	X
Hot-swappable disks (internal and external)	X	X
Dynamic Processor Deallocation	X	X
Hot-plug slots	X	-
Redundant hot-plug power	O	O
Redundant hot-plug cooling	X ^f	X
Capacity		
Maximum logical partitions	3	-
Maximum PCI slots	6 (64-bit)	6 (2 32-bit, 4 64-bit)
Maximum PCI bus speed (MHz)	133	133
Disk media bays	4 2	4 3
Minimum maximum internal disk storage	36.4GB 587.2GB	36.4GB 587.2GB
Ethernet ports	2 - 10/100	1 - 10/100; 1 - 10/100/1000
Storage interfaces		
6204 - Ultra SCSI Differential - PCI	X	X
6203 - 2-channel Ultra3 SCSI - PCI	X	X
5710/5712 - 2-channel Ultra320 SCSI - PCI-X	X	X
5703/5711 - 2-channel Ultra320 RAID - PCI-X	X	X
6230 - SSA Advanced SerialRAID Plus	X	X
6239/5716 - 2 Gigabit Fibre Channel - PCI-X	X	X
Communications and connectivity		
2738/2962 - 2/4-port Multiprotocol PCI	X	X
2943 - 8-port Asynchronous – EIA-232 / RS-422	X	X
2944 - 128-port Asynchronous Controller	X	X
4959 – Token-Ring 4/16 Mbps	X	X
4961 - 4-port 10/100 Mbps Ethernet	X	X
4962 - 10/100 Mbps Ethernet PCI II	X	X
5701 - 10/100/1000 Mbps Base-TX Ethernet PCI-	X	X
5706 - 2-port 10/100/1000 Mbps Base-TX	X	X
5700 - Gigabit Ethernet-SX PCI-X (Fibre)	X	X
5707 - 2-port Gigabit Ethernet-SX PCI-X (Fibre)	X	X
5718 10 Gigabit Ethernet - PCI-X	X	X
2732 - HiPPI ^k	X	-
6312 - Quad Digital Trunk Telephony PCI ^k	X	-
4960 - e-business Cryptographic Accelerator	X	X
4963 - PCI Cryptographic Coprocessor (FIPS-4)	X	-
Audio PCI Adapter for Workstations	X	X
Graphics accelerators	GXT135P, GXT4500P, GXT6500P	GXT135P, GXT4500P, GXT6500P
Benchmarks	(1, 2-way; 1.45 GHz)	(1, 2-way; 1.45 GHz)
SPECint_base2000	884	883
SPECfp_base2000	1,097	1,129
SPECint_rate_base2000	-	-, 18.0
SPECfp_rate_base2000	-	-, 19.6

X = Available

^a - Shared memory

^b - Per processor

^f - Optional on 1.2 GHz systems

^k - Requires additional software; check on availability

ⁿ - Only available as a 1-way system

I/O device options	pSeries 630	IntelliStation POWER 275
Disk drives and subsystems		
7204 External Disk Drive	X	X
7133 Serial Disk System	X	X
2104 Expandable Storage Plus U320	X	X
2105 Enterprise Storage Server®	X	X
5198 NAS Gateway 500	X	X
DS4000 Series Disk Systems	X	X
Fibre Channel directors, switches and hubs		
2031 McDATA Fibre Channel Switch	X	X
2032 McDATA Fibre Channel Director	X	X
2042 INRANGE FC/9000 Fibre Channel Director	X	X
2062 Cisco Fabric Switch / Director	X	-
3534 SAN Switch	X	-
2109 SAN Switch	X	X
Optical drives and libraries		
4.7 GB Auto-docking DVD-RAM Drive	X	X
7210-025/030 DVD-RAM Drive	X	X
#2634 - 16X/48X IDE DVD-ROM Drive (internal)	X	X
Tape drives and libraries		
3494 Enterprise Automated Tape Library	X	X
3575 Magstar® MP Tape Library Dataserver	X	X
3580 Ultrium Tape Drive	X	X
3581 Ultrium Tape Autoloader	X	X
3582 Ultrium Tape Library	X	X
3583 Ultrium Scalable Tape Library	X	X
3584 UltraScalable Tape Library	X	X
3590 Enterprise Tape Drive	X	X
3592 Enterprise Tape Drive	X	X
7205 External DLT Drive	X	X
7206 4 mm Tape Drive	X	X
7207 4GB ¼-inch External Cartridge Tape Drive	X	X
7208 External 8 mm Tape Drive	X	X
7212 SLR60/SLR100 Tape Drives	X	X
7332 4 mm DDS-3 Tape Autoloader	X	X
7337 DLT Tape Library	X	X
#6158 - 20GB/40GB 4 mm Tape Drive (internal)	X	X
#6134 - 60/150GB 8 mm Tape Drive (internal)	X	X
#6120 - 80/160GB VXA Tape Drive (internal)	X	X
#6256 - 36/72GB 4 mm DAT72 Tape Drive (int.)	X	X

X = Available

Note: For the devices listed, not all models are supported on all systems. For more information, contact your IBM marketing representative or IBM Business Partner.

Standard warranty ¹	pSeries 630	POWER 275
9x5 next-business-day	X	-
9x5 next-business-day with CRU (customer replaceable units)	-	X

¹ These warranty terms and conditions are for the United States and may be different in other countries. Consult your local IBM representative or IBM Business Partner for country-specific information.

Workstation UNIX® performance (with AIX 5L™ v5.1) ¹	IntelliStation POWER 275 1-way (1.45 GHz)		IntelliStation POWER 275 2-way (1.45 GHz)	
	GXT4500P	GXT6500P	GXT4500P	GXT6500P
Graphics accelerators				
CATIA benchmarks	*	*	*	*
Graper423	19.67	19.28	21.96	19.25
CATIA423_CPU	21.12	21.21	-	-
CATIA423_Cover (sec) **	0.0429	0.0383	0.0281	0.0382
CATIA423_ENGINE (sec) **	0.0337	0.0342	0.0286	0.0343
CATIA423_SAG_CYL	28.51	26.5	32.99	26.58
Graper424	19.47	19.31	21.99	19.35
CATIA424_CPU	20.02	20	-**	-**
CATIA424_Cover (sec) **	0.042	0.0384	0.0279	0.0382
CATIA424_ENGINE (sec) **	0.033	0.0342	0.0282	0.0339
CATIA424_SAG_CYL	28.48	26.39	32.82	26.53
CATIAV5R8_HOLLAND (sec) **	49.31	45.21	43.69	39.26

* - Using AIX 5L v5.1.0.50

** - Benchmark measurement time in seconds; therefore, a smaller number means better performance

¹ This benchmark data was published July 31, 2003

System software	pSeries 630	IntelliStation POWER 275
Operating system support		
AIX 5L V5.1 (5765-E61)	X	X
AIX 5L V5.1 LPAR	X	-
AIX 5L V5.2 (5765-E61)	X	X
AIX 5L V5.2 dynamic LPAR	X	-
AIX 5L V5.3 (5765-GO3)	X	X
AIX 5L V5.3 dynamic LPAR	X	-

X = Available or standard feature

IBM services

IBM services provide the capabilities and solutions needed to manage virtually every aspect of an open systems environment and at any level chosen. They complement the support already included with IBM @server pSeries systems. IBM world-class services and support allow you to better manage resources and focus on what matters most – your business.

IBM customer financing provides an additional incentive. An array of attractive and flexible financing programs eases the acquisition of new technology and helps protect from the risk of obsolescence. Financing may be available to credit-qualified customers. Rates are based on credit rating, financing terms, and other options. Other restrictions may apply.

Project support services

- Operating system porting/conversion
- Operating system migration assistance
- Systems integration
- IBM and non-IBM software customization
- IBM application development
- Site planning services

Continuing support services

- Customer Support Center services
 - ✓ Electronic/voice
 - ✓ IBM and non-IBM hardware and software
- On-site software maintenance support
- Capacity planning
- Maintenance services, including multivendor environment
- Technical/application specialists
- Network custom services
- Education

Benchmark notes:

The benchmark information contained herein is current as of July 31, 2003.

Values shown in the performance benchmarks section were derived using particular, well-configured, development-level computer systems, and used 32-bit applications and external cache if external cache is supported on the system. All performance benchmark values and estimates are provided "AS IS" and no warranties or guarantees are expressed or implied by IBM. Buyers should consult other sources of information, including system benchmarks, to evaluate the performance of a system they are considering. Actual system performance may vary and is dependent upon many factors including system hardware configuration and software design and configuration. IBM recommends application-oriented testing for performance predictions. Additional information about the performance benchmarks, values, and systems tested is available from your IBM marketing representative or IBM Authorized Reseller or access the following on the Web:

SPEC – <http://www.spec.org>

Unless otherwise indicated, new or upgraded systems were tested with AIX 5L Version 5.1.

More information

- Contact your IBM marketing representative or IBM Business Partner.
- Access the pSeries Products and Services page¹ on IBM's World Wide Web server, and then select the appropriate hardware or software option.
- Product announcement letters containing more details on hardware and software offerings are available at <http://www.ibm.com/ibmlink>.
- More detailed benchmark and performance information is available at http://www.ibm.com/servers/eserver/pseries/hardware/system_perf.html



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¹ The pSeries home page on the Internet can be found at <http://www.ibm.com/servers/eserver/pseries>.