RS/6000 Workstations: Facts and Features

April 1996

RS/6000 workstations	***ThinkPad* Power Series* Model 850***	***Model 43P-100***	***43PSeries Model 43P-120***	***Model 43P-133***
Packaging	**notebook**	**desktop**	**desktop**	**desktop**
Microprocessor type	PowerPC 603e*	PowerPC 604*	PowerPC 604	PowerPC 604
Clock rate	100MHz	100MHz	120MHz	133MHz
Benchmarks[1]				
SPEC**int_base95	2.53	3.36	4.01	4.55
SPECfp_base95	2.07	3.04	3.23	3.59
SPECint95	–	3.59	4.24	4.72
SPECfp95	–	3.20	3.41	3.76
LINPACK DP (in MFLOPS)	–	–	25.5	27.8
LINPACK TPP (in MFLOPS)	–	56.4	61.0	67.5
GPC/XPC Xmark93 (using listed graphics processor)	–	*E15:* 5.53; *S15:* 11.91 *GXT150P:* 14.26 *GXT250P[f]:* 16.10	*E15:* 6.74; *S15:* 12.75 *GXT150P:* 14.70 *GXT250P[f]:* 17.37	*E15:* 7.81; *S15:* 13.74 *GXT150P:* 15.55 *GXT250P[f]:* 18.53
GPC/PLB PLBwire93, PLBsurf93	–, –	*GXT255P[f]:* 48.6, 25.6 3.57, 1.14, 0.84	*GXT255P[f]:* 60.2, 25.7 4.05, 1.34, 0.99	*GXT255P[f]:* 65.9, 28.6 4.41, 1.47, 1.10
GPC/OPC CDRS-02, DX-02, DRV-01	–, –, –			*GXT1000-002[f]:* 108.7, 188.8 23.87, 5.84, 3.75
System memory (standard/maximum)	32MB / 96MB	16MB / 192MB	16MB / 192MB	16MB / 192MB
Memory type	IC DRAM	32-bit SIMM	32-bit SIMM	32-bit SIMM
Data/instruction (L1) cache	32KB	16KB/16KB	16KB/16KB	16KB/16KB
Level 2 (L2) cache	256KB	256KB[c]	512KB	512KB
Memory bus width	64-bit	64-bit	64-bit	64-bit
Memory slots	2	6	6	6
Expansion slots available	–	3 ISA + 2 PCI/ISA	3 ISA + 2 PCI/ISA	3 ISA + 2 PCI/ISA
High-performance Micro Channel* subsystem	N/A	N/A	N/A	N/A
PCI bus speed	33MHz	33MHz	33MHz	33MHz
Disk storage (standard/internal SCSI max.)	810MB or 1.2GB / 1.2GB	1.2GB/5GB	1.2GB/5GB	1.2GB/5GB
With disk arrays and expansion units	–	>140GB	>140GB	>140GB
Storage interfaces				
SCSI/SCSI-2	X *(SCSI-2 std)*	X *(SCSI-2 std)*	X *(SCSI-2 std)*	X *(SCSI-2 std)*
SCSI-2 Differential	–	–	–	–
SCSI-2 Fast/Wide and Differential Fast/Wide	–	X	X	X
Graphics processors / accelerators				
E15 and S15	–***	X (E15 integrated)	X (E15 integrated)	X (E15 integrated)
POWER Gt4e* (8-bit) and POWER Gt4i* (24-bit)	–	–	–	–
POWER Gt4xi* (8-24 bit)	–	–	–	–
POWER GXT100 and POWER GXT150	–	–	–	–
POWER GXT150L*	–	–	–	–
POWER GXT150M*	–	–	–	–
POWER GXT150P*	–	X	X	X
POWER GXT155L*	–	–	–	–
POWER GXT250P and POWERGXT255P	–	X	X	X
POWER GXT500* and POWER GXT500D*	–	–	–	–
POWER GXT1000*	–	X	X	X
Freedom Series** 6000	–	–	–	–
MEGATEK** Mg24	–	–	–	–
Communications and connectivity				
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	–	X	X	X
Token-Ring support (4 Mbps and 16 Mbps)	X (by PCMCIA card)	X	X	X
Ethernet** support	X (by PCMCIA card)	X	X	X
FDDI support	–	–	–	–
X.25 support	–	X	X	X
3270 Connection Adapter	–	–	–	–
ESCON* Control Unit Adapter	–	–	–	–
Block Multiplexer Channel Adapter	–	–	–	–
S/370* Channel Emulator Adapter	–	–	–	–
TURBOWAYS* 100ATM Adapter and 155ATM Adapter	–	–	–	–
S/390* ESCON Channel Emulator	–	–	–	–
Operating system support	AIX*, Solaris** (PowerPC Edition), Windows NT** (PowerPC Edition)	AIX, Solaris (PowerPC Ed.), Windows NT (PowerPC Ed.)	AIX, Solaris (PowerPC Ed.), Windows NT (PowerPC Ed.)	AIX, Solaris (PowerPC Ed.) Windows NT (PowerPC Ed.)

X = Supported N/A = Not Available [a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Asynchronous cache [d]Reflects use of optional 1MB L2 cache [e]Measured with AIX Version 3.2.5
[f]Measured with AIX Version 4.2 ***Has built-in G10 graphics adapter with motion video

RS/6000 workstations

	Model 25T / 25W	***Model 41T / 41W***	***Model 42T / 42W***
Packaging	**desktop / side**	**desktop / side**	**desktop / side**
Microprocessor type	PowerPC 601*	PowerPC 601	PowerPC 604
Clock rate	66MHz; 80MHz	80MHz	120MHz
Benchmarks[1]			
SPEC**int_base95	1.69; 2.03	2.03	2.93
SPECfp_base95	2.23; 2.58	2.58	2.57
SPECint95	1.82; –	–	3.21
SPECfp95	2.32; –	–	2.74
LINPACK DP (in MFLOPS)	12.7; 15.1	20.1[b]	22.4[b]
LINPACK TPP (in MFLOPS)	33.9: 40.5	41.9[b]	60.9[b]
GPC/XPC Xmark93 (using listed graphics processor)	*GXT150:* 10.33 (25T)	*GXT150L[b]:* 14.07 *GXT500D[b]:* 9.97	*GXT150L[b]:* 17.82 *GXT500D[b,f]:* 12.69
GPC/PLB PLBwire93, PLBsurf93	*GXT150:* 18.4, 13.1 (25T) 1.68, 0.38, 0.30 (25T)	*GXT150L[b]:* 24.9, 17.6 2.40, 0.57, 0.43	*GXT150L[b]:* 34.1, 27.5 3.94, 0.87, 0.65
GPC/OPC CDRS-02, DX-02, DRV-01		*GXT500D[b]:* 55.1, 71.4 6.42, 1.64, 0.91	*GXT500D[b,f]:* 76.4, 86.9 11.86, 2.83, 1.66
System memory (standard/maximum)	16MB / 256MB	16MB / 256MB	16MB / 256MB
Memory type	PS/2* ECC SIMM	PS/2 ECC SIMM	PS/2 ECC SIMM
Data/instruction (L1) cache	32KB[a]	32KB[a]	16KB / 16KB
Level 2 (L2) cache	–	0.5MB *(option)*	0.5MB *(option)*
Memory bus width	64-bit	64-bit	64-bit
Memory slots	8	8	8
Expansion slots available	2 Micro Channel	2+2 Micro Channel	2+2 Micro Channel
High-performance Micro Channel* subsystem	80MB/sec	80MB/sec	80MB/sec
PCI bus speed	N/A	N/A	N/A
Disk storage (standard/internal SCSI max.)	540MB / 2.2GB	540MB / 4.4GB	1080MB / 4.4GB
With disk arrays and expansion units	>200GB	>200GB	>200GB
Storage interfaces			
SCSI/SCSI-2	X *(SCSI-2 std)*	X *(SCSI-2 std)*	X *(SCSI-2 std)*
SCSI-2 Differential	X	X	X
SCSI-2 Fast/Wide and Differential Fast/Wide	X	X	X
Graphics processors / accelerators	***	***	
E15 and S15	–	–	–
POWER Gt4e* (8-bit) and POWER Gt4i* (24-bit)	–	X	X
POWER Gt4xi* (8-24 bit)	–	X	X
POWER GXT100 and POWER GXT150	*std* (100 25W, 150 25T)	–	–
POWER GXT150L*	–	*std*	*std*
POWER GXT150M*	X	X	X
POWER GXT150P*	–	–	–
POWER GXT155L*	–	X	X
POWER GXT250P and POWERGXT255P	–	–	–
POWER GXT500* and POWER GXT500D*	–	X	X
POWER GXT1000*	X	X	X
Freedom Series** 6000	–	–	–
MEGATEK** Mg24	X	X	–
Communications and connectivity			
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X
Token-Ring support (4 Mbps and 16 Mbps)	X	X	X
Ethernet** support	X	X	X
FDDI support	X	X	X
X.25 support	X	X	X
3270 Connection Adapter	X	X	X
ESCON* Control Unit Adapter	–	–	–
Block Multiplexer Channel Adapter	–	–	–
S/370* Channel Emulator Adapter	X	–	–
TURBOWAYS* 100ATM Adapter and 155ATM Adapter	–	X (100 only)	–
S/390* ESCON Channel Emulator	–	–	–
Operating system support	AIX	AIX	AIX

X = Supported N/A = Not Available [a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Asynchronous cache [d]Reflects use of optional 1MB L2 cache [e]Measured with AIX Version 3.2.5
[f]Measured with AIX Version 4.2 ***The Realtime Interface Co-Processor Portmaster Adapter is also supported on the 25T/W and 41T/W.

RS/6000 workstations

	Model 3AT	***Model 3BT***	***Model 3CT***
Packaging	**desktop / side**	**desktop / side**	**desktop / side**
Microprocessor type	POWER2	POWER2	POWER2
Clock rate	59MHz	67MHz	67MHz
Benchmarks[1]			
SPEC**int_base95	2.71	3.12[b]	3.29[b]
SPECfp_base95	6.81	7.35[b]	9.61[b]
SPECint95	2.84	3.25[b]	3.42[b]
SPECfp95	7.20	7.71[b]	10.23[b]
LINPACK DP (in MFLOPS)	49.7	55.1[b]	133.6[b]
LINPACK TPP (in MFLOPS)	166.8	182.8[b]	231.3[b]
GPC/XPC Xmark93 (using listed graphics processor)	*GXT150M[e]:* 13.83 *GXT1000-002:* 7.84	*GXT500M[b,e]:* 14.73 *GXT1000-002* [b]: 8.43	*GXT150M[d,e]:* 15.66 *GXT1000-002AG[d,f]:* 12.58
GPC/PLB PLBwire93, PLBsurf93	*GXT150M:* 33.7, 23.1 2.71, 0.63, 0.50	*GXT150M[b]:* 37.3, 26.2 3.06, 0.71, 0.56	*GXT150M[d]:* 39.3, 27.5 3.10, 0.75,0.59
GPC/OPC CDRS-02, DX-02, DRV-01	*GXT1000-002:* 101.8, 204.4 24.64, 6.10, 3.74	*GXT1000-002[b]:* 104.5, 222.9 24.64, 6.67, 4.12	*GXT1000-002AG[d,f]:* 136.6, 258.9 24.63, 6.99, 4.23
System memory (standard/maximum)	32MB / 512MB	32MB / 512MB	64MB / 512MB
Memory type	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM	IBM 40-bit ECC SIMM
Data/instruction (L1) cache	64KB / 32KB	64KB / 32KB	128KB / 32KB
Level 2 (L2) cache	–	0.5MB or 1MB *(option)*	1MB or 2MB *(option)*
Memory bus width	64-bit	64-bit	64-bit
Memory slots	2	2	2
Expansion slots available	3 Micro Channel	3 Micro Channel	3 Micro Channel
High-performance Micro Channel* subsystem	80MB/sec	80MB/sec	80MB/sec
PCI bus speed	N/A	N/A	N/A
Disk storage (standard/internal SCSI max.)	1GB / 18GB	1GB / 18GB	1GB / 18GB
With disk arrays and expansion units	>200GB	>200GB	>200GB
Storage interfaces			
SCSI/SCSI-2	X	X	X
SCSI-2 Differential	X	X	X
SCSI-2 Fast/Wide and Differential Fast/Wide	X *(SCSI-2 Fast/Wide std)*	X *(SCSI-2 Fast/Wide std)*	X *(SCSI-2 Fast/Wide std)*
Graphics processors / accelerators			
E15 and S15	–	–	–
POWER Gt4e* (8-bit) and POWER Gt4i* (24-bit)	X	X	X
POWER Gt4xi* (8-24 bit)	X	X	X
POWER GXT100 and POWER GXT150	–	–	–
POWER GXT150L*	–	–	–
POWER GXT150M*	*std*	*std*	*std*
POWER GXT150P*	–	–	–
POWER GXT155L*	–	–	–
POWER GXT250P and POWERGXT255P	–	–	–
POWER GXT500* and POWER GXT500D*	–	–	–
POWER GXT1000*	X	X	X
Freedom Series** 6000	X	X	X
MEGATEK** Mg24	X	X	X
Communications and connectivity	***	***	***
EIA RS232D, EIA RS422, EIA RS422A, MIL-188	X	X	X
Token-Ring support (4 Mbps and 16 Mbps)	X	X	X
Ethernet** support	X	X	X
FDDI support	X	X	X
X.25 support	X	X	X
3270 Connection Adapter	X	X	X
ESCON* Control Unit Adapter	X	X	X
Block Multiplexer Channel Adapter	X	X	X
S/370* Channel Emulator Adapter	X	X	X
TURBOWAYS* 100ATM Adapter and 155ATM Adapter	X	X	X
S/390* ESCON Channel Emulator	X	X	X
Operating system support	AIX	AIX	AIX

X = Supported N/A = Not Available [a]Total data and instruction cache [b]Reflects use of largest optional L2 cache
[c]Asynchronous cache [d]Reflects use of optional 1MB L2 cache [e]Measured with AIX Version 3.2.5
[f]Measured with AIX Version 4.2 *** The System/370* Host Interface Adapter is supported on the 3AT/BT/CT models.

RS/6000 workstation options

Devices	***ThinkPad 850***	***43P Series***	***25T/25W***	***41T/41W***	***42T/42W***	***3AT/3BT/3CT***
Disk Drives and Subsystems						
3510 PS/2 SCSI Storage Enclosure	X	X	–	–	–	–
7203-001 Portable Disk Drive	–	X	X	X	X	X
7204-010 External Disk Drive 112, 113, 114	–	X	X	X	X	X
7204-215/315/317/325 External Disk Drive	–	X	X	X	X	X
7131-105 SCSI Multi-Storage Tower	–	X	–	X	–	X
7137 Disk Array Subsystem	–	X	X	X	X	X
Optical Drives and Libraries						
3995-A63/063/163 Optical Library	–	–	X	X	X	X
7210-010 CD-ROM Drive	–	X	X	X	X	X
Double-speed CD-ROM (internal)	X	–	–	–	–	–
Quad-speed CD-ROM (internal)	–	X	–	X	X	X
NFS Accelerator**						
0562-004 Prestoserve for AIX/6000*	–	–	–	X	–	X
Tape Drives and Libraries						
7206-005 4mm Tape	–	X	X	X	X	X
7207-012 ¼-inch Cartridge Tape	–	X	X	X	X	X
7208-011 8mm Tape	–	X	X	X	X	X
9348-012 Magnetic Tape Unit (½-inch 9-track)	–	–	X	–	–	X
3490-E01 ½-inch (Cartridge 36-track)	–	–	X	–	–	X
7331-205 8mm Tape Library	–	–	X	X	X	X
7332-005 4mm DDS-2 Tape Autoloader	–	–	X	X	X	X
1.2GB ¼-inch Cartridge Tape Drive (internal)	–	–	–	X	X	X
4GB 4mm Tape Drive (internal)	–	X	–	X	X	X
5GB 8mm Tape Drive (internal)	–	–	–	X	X	X
Displays *(max. viewable screen size when measured diagonally)*						
P50 Color Monitor (13.6 inches / 346mm)	–	X	X	X	X	X
P70 Color Monitor (15.9 inches / 403mm)	–	X	X(25T)	X(41T)	X(42T)	X
P200 Color Monitor (19.1 inches / 486mm)	–	X	X	X	X	X
P201 Color Monitor (19.1 inches / 486mm)	–	X	X	X	X	X

X = Available or standard feature

For the devices listed, not all models are supported on all workstation systems. These devices are supported on the indicated models via the AIX operating system. For more information about these devices and the options, contact your IBM marketing representative or Business Partner.

IBM Services

IBM Services provide the capabilities and solutions you need to manage virtually every aspect of your open systems environment – and at any level you choose. These services complement the support already included with your RS/6000 system. IBM world-class services and support mean you can better manage your 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 you from the risk of obsolescence.

Project support services

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

Continuing support services

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

[1] Values shown in the performance benchmarks section are the results of development-level systems using optional external cache where available and the AIX operating system. All performance data was obtained in a specific environment and is presented "as is" for illustrative purposes only. While these values should be indicative of generally-available systems, no warranties or guarantees are stated or implied by IBM. IBM recommends application-oriented testing for performance predictions and offers the above commonly reported benchmarks only as an initial indicator. Additional information on these tests is available from your IBM local Branch Office or IBM Authorized Reseller.

AIX 4.2, 4.1, or 3.2.5 was used for these benchmarks, except where noted. APAR IX53508 was included for the GXT1000 GPC/OPC performance results. IBM C Set++* for AIX/6000 3.1.2 & AIX XL FORTRAN Version 3.2.2 are the compilers used in these tests. The preprocessors used in the tests include KAP** 2.5 for FORTRAN and KAP/C 1.4.2 from Kuck & Associates, and VAST-2 X.03h28 from Pacific-Sierra Research. The preprocessors were purchased separately from these vendors.

SPECint95: SPEC component-level benchmark that measures integer performance. Result is the geometric mean of eight tests that comprise the CINT95 benchmark suite. All of these are written in C language.

SPECint_base95 is the result of the same tests in CINT95 with a maximum of four compiler flags that must be used in all eight tests. Units are relative to SPARCstation 10, which has a value of 1.0.

SPECfp95: SPEC component-level benchmark that measures floating point performance. Result is the geometric mean of ten tests, all written in FORTRAN, that are included in the CFP95 benchmark suite.

SPECfp_base95 is the result of the same tests in CFP95 with a maximum of four compiler flags that must be used in all ten tests. Units are relative to SPARCstation 10, which has a value of 1.0.

LINPACK DP: Double precision, n=100 results with AIX XL FORTRAN compiler, with optimization. Units are megaflops (MFLOPS).

LINPACK TPP: Toward Peak Performance, n=1,000 results with AIX XL FORTRAN compiler, with optimization. Units are megaflops (MFLOPS).

The Xmark93 rating is the weighted geometric mean of 447 tests executed in the x11perf suite and is an indicator of 2D graphics performance in an X environment. Larger values indicate better performance.

PLBwire93 and PLBsurf93 are geometric means of literal and optimized Picture Level Benchmark (PLB) tests for 3D wireframe and 3D surface tests, respectively. The benchmark and tests were developed by the Graphics Performance Characterization (GPC) Committee. The results shown use the graPHIGS* API. Larger values indicate better performance. Tests were executed on configurations with 32MB of system memory, except for the 3CT configuration which included 64MB. Where appropriate (for example, on GXT500D, GXT1000-002, and GXT1000-002 with Advanced Graphics feature), tests ran with 24-bit visuals; the GXT500 ran with 12-bit visuals; visuals for other configurations were 8-bit. A screen resolution of 1280 x1024 was used on all tests except the GXT250P, which used 1024 x 768.

CDRS-02, DX-02, and DRV-01 are weighted geometric means of individual viewset metrics. The viewsets were developed by ISVs (Independent Software Vendors) with the assistance of OPC (OpenGL Performance Characterization) member companies. Larger values indicate better performance. The system memory sizes were as follows: For CDRS-02 and DX-02, 16MB on the 43P/GXT150P, 64MB on the 3CT, and 32MB on all other systems; for DRV-01, 48MB on all systems except the 3CT which included 64MB. Configurations with the GXT250P used a screen resolution of 1028x768 and all other configurations used a screen resolution of 1280 x1024. Where appropriate (for example, on GXT500D, GXT1000-002, and GXT1000-002 with Advanced Graphics feature), tests ran with 24-bit visuals; visuals for other configurations were 8-bit.

More information

- Contact your IBM marketing representative or IBM Business Partner.
- Access http://www.rs6000.ibm.com on the Internet to get to the RS/6000 Products and Services page‡ on IBM's World Wide Web server, and then select the Hardware option.
- Call (415) 855-4329, a U.S. phone number, to have information faxed to your location. In the U.S., call 1 800 IBM-4FAX (1 800 426-4329).

Worldwide telephone numbers

IBM Asia Pacific	
Australia	132-426x RS/INFO
Bangladesh	880-2-889-783
China (PRC)	
Beijing	10-437-6677 x CRC
Guangzhou	20-778-7268 x CRC
Shanghai	21-6280-1070 x CRC
Hong Kong	852-2825-7878
India (TATA IBM)	080-526-9050
Indonesia	21-251-2922
Japan	0120-00-6025
Korea	02-781-7114
Malaysia	03-717-7788
New Zealand	0800-801-800
Philippines	02-819-2426
Singapore	1-800-320-1234
Sri Lanka	01-440810
Taiwan	02-776-7878
Thailand	02-273-4444
Vietnam	
Hanoi	84-4-426316
Ho Chi Minh	84-8-241474

IBM Europe, Middle East, or Africa	
Albania	35-542-32025
Austria	43-1-21145-2500
Belgium	32-2-225-3600
Bosnia	38-771-219388
Bulgaria	3592-731076
Croatia	3851-6124500
Czech Republic	422-6710-6111
Denmark	4545-8031-6000
Finland	358-9800-42680
France	33-16-3883-4141
Egypt	202-3492533
Germany	49-0180-55090
Greece	30-1-688-1476
Hungary	361-1654422
Ireland	353-18-5020-5205
Israel	972-177-022-3888
Italy	39-167-016338
Macedonia	38991-113144

(IBM Europe, Middle East, or Africa, cont.)	
Netherlands	31-20-513-5151
Norway	47-6699-9191
Poland	482-625-1010
Portugal	351-1-7915880
Romania	401-6158267
Russia	431-21145-5726
Saudi Arabia	966-02-600007
Slovakia	427-7806-111
Slovanija	38661-1252154
South Africa	27-800-128-128
Spain	34-901-100-400
Sweden	46-2022-0203
Switzerland	41-155-1225
Turkey	90-212-2800900
UK	01705-492149
Ukraine	38044-2270225

IBM Latin America	
Argentina	319-6666
Bolivia	591-2-361-555
Brazil	0800-11-1426 x317
Chile	800-200-333
Colombia	9800-17555
Costa Rica	506-223-6222
Dominican	809-566-5161
Ecuador	593-431-1200 x228
El Salvador	503-298-5011
Guatemala	502-231-58-59
Honduras	504-322-309
Mexico	525-627-2444
Nicaragua	505-266-4141
Panama	507-263-9977
Peru	511-349-0050
Uruguay	2-92-36-17
Venezuela	800-33-426

IBM North America	
Canada	1-800-363-RISC (1-800-363-7472)
United States	1-800-IBM-CALL (1-800-426-2255)

© International Business Machines Corporation 1996

IBM Corporation
Department PDQA
RISC System/6000 Division
Route 100
P.O. Box 100
Somers, New York 10589

Printed in the United States of America
4-96
All Rights Reserved

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.

Photographs show engineering and design models. Changes may be incorporated in production models.

This equipment is subject to FCC rules. It will comply with the appropriate FCC rules before final delivery to the buyer.

IBM hardware products are manufactured from new parts, or new and used parts. Regardless, our warranty terms apply.

* The following are trademarks or registered trademarks of the IBM Corporation in the United States or other countries or both: IBM, AIX, AIX/6000, C Set ++, ESCON, graPHIGS, GXT100, GXT150, GXT150L, GXT150M, GXT150P, GXT155L, GXT500, GXT500D, GXT1000, Micro Channel, POWER Gt4e, POWER Gt4i, POWER Gt4xi, PowerPC 601, PowerPC 603e, PowerPC 604, Power Series, RISC System/6000, RS/6000, S/370, S/390, System/370, ThinkPad, and TURBOWAYS.

** Solaris is a trademark or registered trademark of Sun Microsystems, Inc. in the United States and other countries. Windows NT is a trademark or registered trademark of Microsoft Corporation. UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company, Limited. Other company, product, and service names, which are denoted by a double asterisk, may be trademarks or service marks of others.

‡ The IBM home page on the Internet can be found at http://www.ibm.com

G326-0423-05 / G3260423