



IBM RISC System/6000 7013 Model 595 Offers a Broad Range of Powerful, Scalable, and Cost-Effective Computing Solutions

Overview

The RS/6000™ 7013 Model 595 follows the tradition of the high-performance desktop 500 series servers by offering exceptional floating-point and high-memory bandwidth capabilities for numerically-intensive computing needs and continues to be well suited for commercial transaction processing applications.

Included in the Model 595 is the 135MHz Power2 Super Chip (P2SC), a 32-bit RISC chip. The P2SC level 1 instruction cache is 32KB, and the level 1 data cache is either 64KB or 128KB depending on the number of memory cards installed. Two memory cards constitute a four-word memory system and support the 64KB of data cache, four memory cards installed make up an eight-word memory system and support the 128KB of data cache. This will enable you to run large complex jobs entirely in memory (up to 2GB on the 595) without the performance degradation realized from disk paging.

The Model 595 differs from its 500 series predecessors by offering high-performance, dual Micro Channel buses. Each bus is used to generate four Micro Channel slots and supports the high-speed, Data Streaming protocol. The Data Streaming protocol function provides high-bandwidth data transfers on the Micro Channel bus of up to 80MB per second.

The latest releases of AIX® Version 4 provide support for the Model 595. AIX Versions 4.1.5 and 4.2 give you the robust capabilities needed in today's complex computing networks. Large file size support, rich communications offerings, and improved price/performance and high-capacity storage capabilities are but a few of the values AIX provides to the

Model 595. High Availability Cluster Multi-Processing software (HACMP Version 4.2) also supports the 595 for those in need of advanced reliability and scalability.

Intended Customers

The customers will be in two primary market segments. The first is those customers that require advanced technical performance attributes in a mid-range system for their application set, and second, those mid-range commercial customers who are looking for price/performance improvements in uniprocessor-based commercial applications such as a database.

Typical application environments are:

- Technical
 - Mechanical Design and Analysis
 - Petroleum Industry Geophysical Processing and Analysis
 - Electrical Design
 - Scientific Research and Higher Education
- Commercial
- Other

Key Prerequisites

- IBM supported terminal or IBM supported display, display adapter, and keyboard. POWERservers must have a console.
- AIX Versions 4.1.5 and 4.2 for clients and servers.

Purchase Price: \$47,500 (7013-595)

Planned Availability Date

November 8, 1996

At a Glance

This high-performance desktop technical server offers:

- Significant performance improvement over the Model 591
- 135MHz Power2 Super Chip (P2SC) processor
- Dual 80MB per second Micro Channel buses drive four slots each
- Standard 64MB memory expandable to 2GB
- Standard integrated dual controller SCSI-2 fast/wide adapter
- Standard 2.2GB, 16-bit SCSI-2 disk expandable to 54.6GB
- Standard eight speed CD-ROM
- High Availability Cluster (HACMP 4.2) support

For ordering, contact:

Your IBM representative, an IBM Authorized Business Partner, or IBM Direct at

800-IBM-CALL

Reference: RE010

This announcement is provided for your information only. For additional information, contact your IBM representative or call 800-IBM-4YOU.

Description

The RS/6000 Model 595 is one of the highest performing deskside technical servers of the RS/6000 product line. The Model 595 follows the tradition of the Model 591 by offering significant floating-point performance accompanied with exceptional memory bandwidth capabilities. Uniprocessor database applications may also see significant performance gains over the predecessor Model 591 and 59H systems.

The Model 595 uses the Power2 Super Chip (P2SC), a single chip, 15 million transistor CMOS6 implementation of the POWER2 Architecture™. Standard integrated features include dual-controller SCSI-2 fast/wide single-ended adapter, two EIA-232 asynchronous ports, one parallel port, keyboard port, mouse port, and a tablet port. The Model 595 supports a wide variety of optional communications adapters, DASD, media, and graphics solutions. A total of six internal, 3.5-inch DASD bays and three 3.5-inch media bays provide plenty of room for applications growth and reliable backup capabilities.

Product Positioning

The Model 595 addresses the SGI PowerChannel systems offered in the technical arena and the HP/DEC desksides in the commercial arena. The Model 595 delivers leadership, floating-point performance in the uniprocessor UNIX market, and leadership, price/performance ratio.

The Model 595 is a competitive uniprocessor system that provides a natural follow-on to 5XX systems, for environments that require a uniprocessor system, and/or do not require the commercial performance delivered by the RS/6000 SMP systems.

The P2SC processor will be used in the RS/6000 SP™ systems, running at 135MHz (wide node) and 120MHz (thin node).

Education Support

Education for the IBM RS/6000 hardware and related software is available to support effective installation planning, programming, and efficient day-to-day operations.

For a complete listing of available courses, contact your IBM representative or call IBM Education and Training at 800-IBM-TEACH (426-8322), for education catalogs, schedules, and enrollments.

Publications

The System Library Subscription Service (SLSS) is available by order number only. Customers currently subscribing to SLSS will receive publication updates automatically.

Technical Information

Specified Operating Environment

Physical Specifications

- Net Weight and Physical Size
 - Width: 360 mm (14.2 in)
 - Depth: 675 mm (26.6 in)
 - Height: 610 mm (24.0 in)
 - Weight: 36.7 kg to 53.1 kg (81 lb to 117 lb)

- Gross Weight and Box Size
 - Width: 568 mm (22.36 in)
 - Depth: 803.3 mm (31.63 in)
 - Height: 755 mm (29.72 in)
 - Weight: 43.1 kg to 56.7 kg (95 lb to 125 lb)
- Voltage
 - 100 V to 125 V Nominal, Auto Ranging
 - 200 V to 240 V Nominal, Auto Ranging
 - 50Hz/60Hz
 - Power Supply: 550 Watts (typical)
 - Thermal Output: 500 Joules (1,620 Btu per hour)
 - Power Source Loading: 0.5 kVA

Operating Environment

- Temperature: 16° to 32°C (60.8° to 89.6° F) (modified environmental Class B)
- Relative humidity:
 - 8% to 80% (product power on, no tape media)
 - 20% to 80% (product power on, with tape media)
- Maximum Wet Bulb: 23°C (73°F)
- Noise Emission
 - Declared (upper limit) sound power level for a random sample of machines:
 - Operating: 5.8 Bels
 - Idle: 5.3 Bels
 - Mean Value of the A-Weighted Sound Pressure levels at one-meter (bystander) positions for a random sample of machines:
 - Operating: 39 dBA
 - Idle: 38 dBA

The Model 595 was developed in compliance with corporate policy letter number 139 (Environmental Affairs).

EMC Conformance Classification

- U. S. A.: FCC Class A
- Germany: EMC EN55022 Class A
- Europe and New Zealand: CISPR 22 Class A — CEMARK A
- Japan: VCCI-1

Environmental Impact Assessment: The Model 595 is in compliance with Corporate Standard C-S 3-0527-002 (1991-06) Control of Chemicals in IBM Facilities, Requirements, and Responsibilities.

Product Safety/Country Testing/Certification

- U.S.A.: UL
- Canada: CSA
- Germany: GS Mark (Safety, TUV)
- Europe: EN60-950

Telecom Environmental Testing (Safety and EMC): RS/6000 Model 595 and applicable features meet the environmental testing requirements of the country TELECOM. The testing and approval process is ongoing.

Country	Environmental Test	
	Safety	EMC
Canada	CSA	
Chile	Telecom	
Denmark	DEMKO	
Finland	EIF	
France	LCIE	LCIE
Hong Kong	Telecom	
Ireland	Telecom	
Italy	Telecom	
Japan	Telecom	
Korea	Telecom	
Malaysia	SIRIM	
Mexico	Telecom	
Netherlands	Telecom	
New Zealand	Telecom	Telecom
Norway	NEMKO	
Spain	Ministry of Industry	
Sweden	SEMKO	
Switzerland	SEV	
U.K.	BABT	

Feature Availability

The following feature availability matrix uses the letter "A" to indicate features that are available and orderable on the specified models. "S" indicates a feature that is supported on the new model during a model conversion; these features will work on the new model but additional quantities of these features cannot be ordered on the new model; they can only be removed. "N" indicates that the feature is not supported on the new model and must be removed during the model conversion. As additional features are announced, supported, or withdrawn, this list will be updated. Check with your IBM representative for additional information.

Feature Number	5 9 5	A = Available S = Supported N = Not supported, must be removed	
		Description	
0986	A	CCS Customer Service Specify (U.S.)	
1000	S	Order Validation Specify Code	
1101	A	Non-Locking Switch Select	
1110	A	Keyboard — U.S. English Soft Touch (U.S./Canada only)	
1902	N	Optics Daughter Card, 1-Port, 1,063 Mb/sec, Short Wave	
1904	N	Star Fiber Channel MCA Adapter, Mother Card	
2390	N	540MB SCSI-2 Disk Drive	
2391	N	400MB to 540MB SCSI-2 Disk Drive Select	
2400	N	M-Video Capture Adapter (NTSC)	
2402	A	IBM Network Terminal Accelerator — 256 Session	
2403	S	IBM Network Terminal Accelerator — 2,048 Session	
2404	S	Ultimedia (R) Video I/O Adapter	
2405	S	IBM Ultimedia Video Compression/Decompression Card	
2410	S	SCSI-2 High-Performance External I/O Controller	
2412	A	Enhanced SCSI-2 Differential Fast/Wide Adapter/A	
2413	S	IBM SCSI-2 Differential Fast/Wide Adapter/A Select	
2414	S	IBM SCSI-2 Fast/Wide Adapter/A Select	
2415	A	IBM SCSI-2 Fast/Wide Adapter/A	
2416	A	IBM SCSI-2 Differential Fast/Wide Adapter/A	
2417	S	IBM SCSI-2 Differential Fast/Wide Adapter/A Select	
2418	S	Enhanced SCSI-2 Differential Fast/Wide Adapter/A Select	
2419	S	Enhanced SCSI-2 Differential Fast/Wide Adapter/A Select	
2420	S	SCSI-2 Differential High-Performance External I/O Controller	
2422	A	SCSI-2 Differential Y-Cable	

Feature Number	5 9 5	A = Available S = Supported N = Not supported, must be removed	
		Description	
2423	A	SCSI-2 Differential System to System Cable	
2424	A	0.6 m 16-bit SCSI-2 System to System Cable	
2425	A	2.5 m 16-bit SCSI-2 System to System Cable	
2426	A	16-bit Y-Cable For IBM SCSI-2 Differential Fast/Wide Adapter/A	
2427	A	8-bit Y-Cable for IBM SCSI-2 Differential Fast/Wide Adapter/A	
2428	S	8-bit Internal 6-Drop Cable for IBM SCSI-2 Fast/Wide Adapters Select	
2429	S	16-bit Internal 6-Drop Cable for IBM SCSI-2 Fast/Wide Adapters Select	
2430	A	8-bit Internal 6-Drop Cable for IBM SCSI-2 Fast/Wide Adapters	
2431	A	16-bit Internal 6-Drop Cable for IBM SCSI-2 Fast/Wide Adapters	
2433	S	16-bit Internal 6-Drop Cable for IBM SCSI-2 Fast/Wide Adapters Select	
2435	A	16-bit IBM SCSI-2 Fast/Wide Adapter/A to Dual-Ported Device Cable	
2436	A	16-bit IBM SCSI-2 Differential Fast/Wide Adapter/A to Dual-Ported Device Cable	
2437	A	8-bit IBM SCSI-2 Fast/Wide Adapter/A to Dual-Ported Device Cable	
2438	A	8-bit IBM SCSI-2 Differential Fast/Wide Adapter/A to Dual-Ported Device Cable	
2439	A	8-bit IBM SCSI-2 Fast/Wide Adapter/A to Single-Ported Device Cable	
2500	N	355MB SCSI Disk Drive	
2510	N	670MB SCSI Disk Drive	
2511	N	355MB to 670MB SCSI Disk Drive Select Feature	
2529	N	400MB to 857MB SCSI Disk Drive Select	
2530	N	857MB SCSI Disk Drive	
2531	N	355MB to 857MB SCSI Disk Drive Select	
2532	N	640MB to 857MB SCSI Disk Drive Select	
2534	N	800MB to 857MB SCSI Disk Drive Select	
2542	N	640MB SCSI Disk Drive Pair	
2543	N	355MB to 640MB SCSI Disk Drive Pair Select	
2550	N	1GB SCSI Disk Drive	
2551	N	400MB to 1GB SCSI Disk Drive Select	
2552	N	800MB to 2GB SCSI Disk Drive Pair Select	
2555	S	1GB SCSI-2 Disk Drive	
2556	S	400MB to 1GB SCSI-2 Disk Drive Select	
2557	S	800MB to 2GB SCSI-2 Disk Drive Pair Select	
2560	N	400MB SCSI Disk Drive	
2562	N	800MB SCSI Disk Drive Pair	
2567	S	2GB to 2X1GB Disk Drive Select	
2570	N	1.37GB SCSI Disk Drive	
2572	N	400MB to 1.37GB SCSI Disk Drive Select	
2574	N	800MB to 1.37GB SCSI Disk Drive Select	
2580	S	2GB SCSI-2 Disk Drive	
2583	S	1GB to 2GB SCSI-2 Disk Drive Select	
2585	S	800MB to 2GB SCSI-2 Disk Drive Select	
2586	S	2GB SCSI-2 Fast/Wide Disk Drive	
2587	S	2GB to 2GB SCSI-2 Fast/Wide Disk Drive Select	
2588	S	1GB to 2GB SCSI-2 Fast/Wide Disk Drive Select	
2590	N	2.4GB SCSI-2 Disk Drive	
2592	N	400MB to 2.4GB SCSI-2 Disk Drive Select	
2593	N	670MB to 2.4GB SCSI-2 Disk Drive Select	
2594	N	2.0GB to 2.4GB SCSI-2 Disk Drive Select	
2598	N	2GB to 2.4GB SCSI-2 Disk Drive Select	
2600	S	Internal CD-ROM	
2602	S	Internal CD-ROM to CD-ROM-2 Select	
2603	S	Internal CD-ROM-2	
2604	S	600MB SCSI-2 Double Speed Tray-loading CD-ROM	
2613	S	600MB SCSI-2 Double Speed Tray-loading CD-ROM Select	
2614	S	600MB SCSI-2 Double Speed Tray-loading CD-ROM Select	
2615	N	External 5.25-Inch Diskette Drive Attachment Cable	
2616	S	Quad Speed Tray-loading CD-ROM	
2617	S	Quad Speed Tray-loading CD-ROM Select	
2618	A	Internal CD-ROM-2/8X/Tray-loading, 1,200 KB/sec	
2630	A	Internal 1.2GB 1/4-Inch Cartridge Tape Drive	
2650	A	POWER GXT150M (TM) Graphics Adapter	
2700	A	4-Port Multiprotocol Communications Controller	
2702	A	Multiprotocol Attachment Cable — V.35	
2704	A	Multiprotocol Attachment Cable — X.21	
2705	A	4-Port Multiprotocol Interface Cable	
2706	A	Multiprotocol Modem Attachment Cable — EIA-232/V.24	
2711	N	POWER Gt4xi (TM) 8-bit Graphics Adapter	
2712	S	POWER Gt4xi 24-bit Graphics Adapter	

Feature Number	5 9 5	Description
		A = Available S = Supported N = Not supported, must be removed
2713	N	POWER Gt4i (TM) 24-bit Graphics Adapter
2720	S	Fiber Distributed Data Interface Single-Ring Adapter
2722	S	Fiber Distributed Data Interface Dual-Ring Upgrade Kit
2723	A	FDDI-Fiber Dual-Ring Upgrade
2724	A	FDDI-Fiber Single-Ring Adapter
2725	A	FDDI-STP Single-Ring Adapter
2726	A	FDDI-STP Dual-Ring Upgrade
2735	A	High-Performance Parallel Interface Adapter
2754	A	S/390 (R) ESCON (R) Channel Emulator
2755	A	Block Multiplexer Channel Adapter
2756	A	ESCON Control Unit Adapter
2757	A	Block Multiplexer Channel Adapter Cable
2758	A	Block Multiplexer Channel Cable Assembly
2759	A	System/370 (TM) Channel Emulator/A
2760	N	Grayscale Graphics Display Adapter
2768	S	POWER Gt3i (TM)
2770	N	Color Graphics Display Adapter
2776	N	POWER Gt4e (TM)
2777	N	POWER Gt3 (TM)
2780	N	High-Performance 8-bit 3D Color Graphics Processor
2781	N	High-Performance 24-bit 3D Color Graphics Processor
2782	N	24-bit Z-Buffer Solid Rendering Option
2783	N	24-bit Color Graphics Frame Buffer Upgrade
2790	N	POWER Gt4x (TM) 8-bit Feature
2791	N	POWER Gt4x 24-bit Feature
2792	N	POWER Gt4 (TM) 8-bit to 24-bit Upgrade
2794	N	POWER Gt4 Performance Upgrade
2795	N	POWER Gt4 8-bit Feature
2796	N	POWER Gt4 24-bit Feature
2800	N	System/370 Host Interface Adapter
2801	N	5086 Attachment Adapter
2802	N	5085 Attachment Adapter
2810	A	Graphics Input Device Adapter
2811	A	Graphics Input Device Cable
2820	A	IBM 7250 Attachment Adapter
2829	S	External I/O Controller — Towers
2831	S	SCSI-2 High-Performance Internal I/O Controller
2832	A	SCSI Controller Cable
2833	A	Integrated SCSI Controller Cable
2835	A	SCSI High-Performance External I/O Controller
2836	A	SCSI-2 Controller Cable
2860	N	Serial Optical Channel Converter
2866	N	6 meter Serial Optical Channel Converter Cable
2867	N	10 meter Serial Optical Channel Converter Cable
2868	N	20 meter Serial Optical Channel Converter Cable
2869	N	60 meter Serial Optical Channel Converter Cable
2870	N	100 meter Serial Optical Channel Converter Cable
2914	S	SCSI-2 Passthrough Terminator Cable (50-Pin)
2915	S	SCSI Controller Passthrough Terminator Cable (60-pin)
2921	S	ARTIC960 Co-Processor (1MB)
2922	S	Cable Option EIA-232
2923	A	Cable Option EIA-530, RS-422
2924	A	ARTIC960 Co-Processor (4MB)
2926	A	Cable Option ISO 4902 V.36
2927	A	Cable Option ISO 4903 X.21
2928	S	ARTIC960 Co-Processor (8MB)
2929	A	ARTIC960 Co-Processor, 8-Port EIA-232
2930	A	8-Port Asynchronous Adapter — EIA-232
2934	A	Asynchronous Terminal/Printer Cable EIA-232
2935	A	ARTIC960 Co-Processor, 6-Port V.36
2936	A	Asynchronous Cable EIA-232/V.24
2937	S	Printer/Terminal Interposer — EIA-232
2938	A	ARTIC960 Coprocessor, 8-Port X.21
2939	A	ARTIC960 8-Port EIA-232 Cable
2940	A	8-Port Asynchronous Adapter — EIA-422-A
2941	A	ARTIC960 6-Port V.36 Cable
2942	A	ARTIC960 6-Port X.21 Cable
2945	A	Asynchronous Terminal Cable — EIA-422-A
2950	S	8-Port Asynchronous Adapter — MIL-STD 188
2955	A	16-Port Asynchronous Adapter — EIA-232
2957	A	16-Port Asynchronous Adapter — EIA-422-A
2959	S	1-Port Multiprotocol Communications Adapter

Feature Number	5 9 5	Description
		A = Available S = Supported N = Not supported, must be removed
2960	A	X.25 Interface Co-Processor/2 Adapter
2965	A	X.25 Attachment Cable X.21 — 3 meter (10 feet)
2966	A	X.25 Attachment Cable V.24 — 3 meter (10 feet)
2967	A	X.25 Attachment Cable V.35 — 3 meter (10 feet)
2970	S	Token-Ring High-Performance Network Adapter
2972	A	IBM Auto Token-Ring LANstreamer (TM) 32 MC Adapter
2976	A	X.25 Attachment Cable X.21 — 6 meter (20 feet)
2977	A	X.25 Attachment Cable V.24 — 6 meter (20 feet)
2978	A	X.25 Attachment Cable V.35 — 6 meter (20 feet)
2980	S	Ethernet High-Performance LAN Adapter
2984	S	TURBOWAYS (TM) 100 ATM Adapter
2989	A	TURBOWAYS 155 ATM Adapter
2990	S	3270 Connection Adapter — U.S.
2992	A	Ethernet/FDX 10 Mbps TP/AUI MC Adapter
2993	A	Ethernet/FDX 10 Mbps BNC/AUI MC Adapter
2995	A	Multiport Interface Cable
2996	A	16-Port Interface Cable — EIA-232
2997	A	16-Port Interface Cable — EIA-422-A
3010	A	9.1GB SCSI-2 Fast/Wide Disk Drive
3013	A	9.1GB Fast/Wide SCSI DASD, Select (9264/9131)
3015	S	9.1GB Fast/Wide SCSI DASD, Select (9249)
3030	S	1.1GB SCSI-2 Disk Drive
3031	S	2.2GB SCSI-2 Disk Drive
3032	S	1.1GB SCSI-2 Fast/Wide Disk Drive
3033	A	2.2GB SCSI-2 Fast/Wide Disk Drive
3034	A	4.5GB SCSI-2 Fast/Wide Disk Drive
3040	S	1.1GB SCSI-2 Fast/Wide Disk Drive Select
3041	S	1.1GB SCSI-2 Fast/Wide Disk Drive Select (Must order quantity of two)
3042	S	1.1GB SCSI-2 Fast/Wide Disk Drive Select (Must order quantity of two)
3043	S	2.2GB SCSI-2 Fast/Wide Disk Drive Select
3044	S	2.2GB SCSI-2 Fast/Wide Disk Drive Select
3047	S	4.5GB SCSI-2 Fast/Wide Disk Drive Select
3048	S	4.5GB SCSI-2 Fast/Wide Disk Drive Select
3049	A	4.5GB SCSI-2 Fast/Wide Disk Drive Select
3060	S	1GB SCSI-2 Initial Order (Must order quantity of two)
3061	S	1GB SCSI-2 Initial Order (Must order quantity of four)
3062	S	2GB SCSI-2 Initial Order (Must order quantity of two)
3063	S	2GB SCSI-2 Initial Order (Must order quantity of four)
3064	S	2GB SCSI-2 Fast/Wide Initial Order (Must order quantity two)
3065	S	2GB SCSI-2 Fast/Wide Initial Order (Must order quantity of four)
3100	A	PC Parallel Printer Cable
3124	A	Serial to Serial Port Cable for Drawer/Drawer
3125	A	Serial to Serial Port Cable for Rack/Rack
3130	A	SCSI Device to Device Cable
3600	S	POWERdisplay 16
3601	S	POWERdisplay 19
3607	S	POWERdisplay 17
3608	S	POWERdisplay 20
3612	A	P50 Color Monitor
3613	A	P70 Color Monitor
3614	A	P200 Color Monitor
3615	A	P201 Color Monitor
4008	N	8MB SD1 Memory Card
4010	N	8MB to 16MB SD1 Memory Select Feature
4016	N	16MB SD1 Memory Card
4032	N	32MB HD1 Memory Card
4033	N	8MB to 32MB HD1 Memory Select
4035	N	64MB HD1 Memory Card
4036	N	8MB to 64MB HD1 Memory Select
4057	A	64MB S5 Memory Select
4058	A	128MB S5 Memory Select
4059	A	256MB S5 Memory Select
4063	N	8MB HD3 Memory Card
4065	N	32MB HD2 Memory Card
4066	N	16MB HD3 Memory Card
4067	S	32MB HD3 Memory Card
4068	S	16MB to 32MB HD3 Memory Select
4069	S	64MB HD3 Memory Card

Feature Number	Description
595	A = Available S = Supported N = Not supported, must be removed
4070	S 16MB to 64MB HD3 Memory Select
4071	S 32MB to 64MB HD3 Memory Select
4076	A 32MB S5 Memory
4077	A 64MB S5 Memory
4078	A 128MB S5 Memory
4079	A 256MB S5 Memory
4090	S 128MB Memory Card
4092	S 32MB to 128MB Memory Select
4095	S 256MB Memory Card
4096	S 32MB to 256MB Memory Select
4213	A 13W3 to 15-Pin D-Shell Converter Cable
4214	A 13W3 to 60/77Hz Display Cable
4221	N Ethernet AUI/Thin Riser
4222	N Ethernet Twisted Pair Riser
4224	A Ethernet 10BaseT Transceiver
4227	A Sun Compatible Display Converter Cable
4229	S 13W3 to PowerDisplay 16S Display Cable
4234	A 13W3 to 13W3 Display Cable
4236	A 13W3 to 3W3 Display Cable
4350	N POWERgraphics GTO Accelerator Feature
5005	A Software Preinstall
5032	N 32MB Memory SIMM Kit
5064	A 64MB Memory SIMM Kit
5065	S 64MB S5 Memory SIMM Upgrade
5128	A 128MB Memory SIMM Kit
6010	A Keyboard — 101 Keys (U.S.)
6011	A Keyboard — 102 Keys (Belgian-Dutch/French)
6012	A Keyboard — 102 Keys (Canadian French)
6013	A Keyboard — 102 Keys (Danish)
6014	A Keyboard — 102 Keys (Finnish)
6015	A Keyboard — 102 Keys (French)
6016	A Keyboard — 102 Keys (German)
6017	A Keyboard — 102 Keys (Italian)
6019	A Keyboard — 102 Keys (Norwegian)
6020	A Keyboard — 102 Keys (Portuguese)
6021	A Keyboard — 102 Keys (Spanish)
6022	A Keyboard — 102 Keys (Swiss)
6023	A Keyboard — 102 Keys (United Kingdom — English)
6024	A Keyboard — 102 Keys (Icelandic)
6025	A Keyboard — 102 Keys (Turkish)
6026	A Keyboard — 102 Keys (Greek)
6027	A Keyboard — 102 Keys (Hebrew)
6028	A Keyboard — 102 Keys (Arabic)
6030	A Keyboard — 106 Keys (Japanese — Kanji)
6031	A Keyboard — 106 Keys (Korean)
6033	A Keyboard — 106 Keys (Chinese Traditional — Taiwan)
6034	A Keyboard — Dutch #143 (Netherlands)
6035	A Keyboard — Turkish #440
6041	A Three-Button Mouse
6141	A CD-ROM to 5GB 8-mm Tape Select
6142	A 4GB/8GB 4-mm Internal Tape Drive
6143	S CD-ROM to 2.3GB 8-mm Internal Tape Drive Select
6144	S CD-ROM to 5.0GB 8-mm Internal Tape Drive Select
6145	A CD-ROM-2 to 4GB 4-mm Tape Drive Select
6146	S 2.3GB 8-mm Internal Tape Drive
6147	A 5GB/10GB 8-mm Internal Tape Drive
6175	A Cluster Power Controller
6176	A Null Modem Cable ^L CPC to TTY
6177	A Null Modem Cable ^L CPC to CPC
6178	A Null Modem Cable ^L CPC to CPU
6210	S High-Performance Disk Drive Subsystem Adapter (40 MB/sec)
6211	S High-Performance Disk Drive Subsystem Adapter (80 MB/sec)
6212	S High-Performance Subsystem Adapter (40/80 MB/sec)
6214	A High Performance 4-Port SSA Adapter
6216	A Enhanced 4-Port, SSA, Serial Adapter, MCA
6217	A 4-Port (External Only), SSA/RAID, Serial Adapter, MCA
6300	A Digital Trunk Adapter
6301	N M-Audio Capture Playback Adapter
6302	S IBM Ultimedia Audio Adapter
6305	A Digital Trunk Dual Adapter
6306	N IBM Speech Accelerator 1
6307	N IBM Speech Accelerator 2
6400	S 64-Port Asynchronous Controller
6401	S 16-Port Asynchronous Concentrator
6402	S RJ-45 to DB-25 Converter Cable
6501	A 3.5-Inch Disk Drive Mounting Hardware

Feature Number	Description
595	A = Available S = Supported N = Not supported, must be removed
6506	A Incremental Cooling Fan
7002	S IBM Realtime Interface Co-Processor ^L Multiport/2 Adapter (.5MB)
7004	S IBM Realtime Interface Co-Processor ^L Multiport/2 Adapter (1MB)
7006	A IBM Realtime Interface Co-Processor ^L Portmaster (R) Adapter/A (1MB)
7008	S IBM Realtime Interface Co-Processor ^L Portmaster Adapter/A (2MB)
7022	S IBM Realtime Interface Co-Processor ^L Multiport/2 4-Port RS-232 Interface Board
7024	S IBM Realtime Interface Co-Processor ^L Multiport/2 6-Port RS-232-C Synchronous Interface Board
7026	S IBM Realtime Interface Co-Processor ^L Multiport/2 8-Port RS-232 Interface Board
7028	S IBM Realtime Interface Co-Processor ^L Multiport/2 8-Port RS-422-A Interface Board
7030	S IBM Realtime Interface Co-Processor ^L Multiport/2 RS-232/RS-422 Interface Board
7042	A IBM Realtime Interface Co-Processor ^L 8-Port RS-232 Interface Board/A
7044	A IBM Realtime Interface Co-Processor ^L 8-Port
7046	A IBM Realtime Interface Co-Processor ^L 6-Port V.35 Interface Board/A
7102	S IBM Realtime Interface Co-Processor ^L EIA RS-232-C Multiport Interface Cable
7104	S IBM Realtime Interface Co-Processor ^L Synchronous Interface Cable
7106	A IBM Realtime Interface Co-Processor ^L 6-Port V.35 Cable
7107	A IBM Realtime Interface Co-Processor ^L V.35 Network Cable
7108	A IBM Realtime Interface Co-Processor ^L 8-Port EIA-232/422 Cable
7111	A IBM Realtime Interface Co-Processor ^L X.21 Network Cable
8128	A 128-Port Asynchronous Controller
8130	A Remote Asynchronous Node 16-Port EIA-232 (U.S.)
8131	A 128-Port Asynchronous Controller Cable, 4.5 meter
8132	A 128-Port Asynchronous Controller Cable, 23 cm (9 in)
8133	A RJ-45 to DB-25 Converter Cable
8135	A 64-Port to 128-Port Pin-Out Converter
8136	A Rack Mountable Remote Asynchronous Node 16-Port EIA-232
8A0836	N MG24 Graphics Adapter
8A0875	N ICL Search Accelerator
9000	N Ethernet AUI/Thin Riser Specify
9001	N Ethernet Twisted-Pair Riser Specify
9004	A Southern Hemisphere Specify for Monitors
9042	N 1MB L2 Cache Specify
9076	A 32MB S5 Memory Specify
9116	S Transformer Specify, 115 to 127 V AC
9131	A 2.2GB SCSI-2 Fast/Wide Disk Drive Specify
9150	N Serial Optical Channel Converter Module Specify
9212	S Base Enhanced SCSI-2 Differential Fast/Wide Adapter/A
9216	S IBM SCSI-2 Fast/Wide Adapter/A Specify
9218	S Internal CD-ROM-2 Specify
9219	S SCSI-2 I/O Controller Specify
9220	S SCSI I/O Controller Specify
9221	A 3.5-Inch 1.44MB Diskette Drive Specify
9223	S Internal CD-ROM Specify
9231	N 8MB SD1 Memory Specify
9232	N 32MB HD2 Memory Specify
9234	N 16MB HD3 Memory Specify
9235	S 32MB HD3 Memory Specify
9236	N 16MB SD1 Memory Specify
9243	N 640MB SCSI Disk Drive Specify
9244	N 400MB SCSI Disk Drive Specify
9245	N 800MB SCSI Disk Drive Specify
9246	N 355MB SCSI Disk Drive Specify
9249	S 1GB SCSI-2 Disk Drive Specify
9263	S 2GB SCSI-2 Disk Drive Specify X2
9300	A Language Group Specify — U.S. English
9430	S SCSI-2 Fast/Wide Internal Cable Specify
9431	S SCSI-2 16-bit Internal 6-Drop Cable Specify
9606	S Base Quad Speed Tray-loading CD-ROM
9608	A Base CD-ROM2/BX/Tray-loading, 1,200 KB/sec
9712	A Language Group Specify — Canadian French
9800	A Power Cord Specify — United States/Canada
9986	A Power Cord Specify — Chicago (125 V, 15 A) (1.8 m)(6 ft)

Supported I/O Devices

External Storage Machines

- IBM 0840 Model 001 Exabyte EXB-10e 50GB 8-mm Tape Cartridge Handling Subsystem
- IBM 3490 Model C11 4.8GB Enhanced Capability Magnetic Tape Subsystem
- IBM 3490 Model C22 9.6GB Enhanced Capability Magnetic Tape Subsystem
- IBM 3494 Tape Library Dataserver Model L10
- IBM 3494 Tape Library Dataserver Model L12
- IBM 3590 Model B1A High-Performance Tape Subsystem
- IBM 3590 Model B11 High-Performance Tape Subsystem
- IBM 3995 Model A63 20GB Optical Library Dataserver
- IBM 3995 Model 063 40GB Optical Library Dataserver
- IBM 3995 Model 163 188GB Optical Library Data Server
- IBM 0562 Model 001 270GB LAGO Systems LS/380L DataWheel 8-mm Tape Library
- IBM 0562 Model 002 270GB LAGO Systems LS/380L DataWheel 8-mm Tape Library with Laser Bar Code Scanner
- IBM 0562 Model 004 Prestoserve for IBM AIX/6000®
- IBM 7131 Model 105 MultiStorage Tower Disk Subsystem
- IBM 7133 Model 010 Serial Storage Disk Subsystem
- IBM 7133 Model 500 Serial Storage Disk Subsystem
- IBM 7134 Model 010 Disk Array Subsystem
- IBM 7135 Model 210 RAIDiant Array
- IBM 7137 Model 412 Disk Array Subsystem
- IBM 7137 Model 413 Disk Array Subsystem
- IBM 7137 Model 414 Disk Array Subsystem
- IBM 7137 Model 415 Disk Array Subsystem
- IBM 7137 Model 512 Disk Array Subsystem
- IBM 7137 Model 513 Disk Array Subsystem
- IBM 7137 Model 514 Disk Array Subsystem
- IBM 7137 Model 515 Disk Array Subsystem
- IBM 7135 Model 010 RAIDiant Array
- IBM 7135 Model 110 RAIDiant Array
- IBM 7202 Model 900 Expansion Rack
- IBM 7203 Model 001 Portable Disk Unit
- IBM 7204 Model 112 External Disk Drive
- IBM 7204 Model 215 External Disk Drive
- IBM 7204 Model 315 External Disk Drive
- IBM 7204 Model 317 External Disk Drive
- IBM 7204 Model 325 External Disk Drive
- IBM 7204 Model 001 1GB External Disk Drive
- IBM 7204 Model 010 1GB External Disk Drive
- IBM 7206 Model 001 2.0GB External 4-mm Tape Drive
- IBM 7206 Model 005 4.0GB External 4-mm Tape Drive
- IBM 7207 Model 001 150MB 1/4-inch Tape Drive
- IBM 7207 Model 011 525MB External 1/4-Inch Cartridge Tape Drive
- IBM 7207 Model 012 1.2GB External 1/4-Inch Cartridge Tape Drive
- IBM 7208 Model 001 2.3GB 8-mm Tape Drive
- IBM 7208 Model 011 5.0GB 8-mm Tape Drive
- IBM 7209 Model 001 650MB Read/Write Optical Disk Drive
- IBM 7209 Model 002 1.19GB Read/Write Optical Disk Drive
- IBM 7210 Model 001 External CD-ROM Drive
- IBM 7210 Model 005 External CD-ROM Drive
- IBM 7331 8-mm Tape Library
- IBM 7332 4-mm DAT Tape Autoloader
- IBM 9291 Single Digital Trunk Processor
- IBM 9295 Multiple Digital Trunk Processor
- IBM 9333 Model 500 High-Performance Disk Drive Subsystem
- IBM 9333 Model 010 High-Performance Disk Drive Subsystem (For installation on 7202 Model 900 only)

- IBM 9333 Model 501 High-Performance Disk Drive Subsystem (For installation on 7202 Model 900 only)
- IBM 9333 Model 011 High-Performance Disk Drive Subsystem (For installation on 7202 Model 900 only)
- IBM 9334 Model 500 Deskside Expansion Unit (Requires dedicated SCSI I/O Controller)
- IBM 9334 Model 010 Deskside Expansion Unit (For installation on IBM 7202 Model 900 only)
- IBM 9334 Model 501 Deskside Expansion Unit (Requires dedicated SCSI I/O Controller)
- IBM 9334 Model 011 Deskside Expansion Unit (For installation on IBM 7202 Model 900 only)
- IBM 9348 Model 012 Magnetic Tape Unit (1/2-inch, 9-track Tape Drive)

ASCII Terminals• The IBM 3151, 3153, 3161, 3162, 3163, and 3164 are supported in 3161 mode. Support of the IBM 3164 includes color attributes.

- IBM 3151 Model 310/410²
- IBM 3153²
- IBM 3161²
- IBM 3162²
- IBM 3163²
- IBM 3164²
- DEC VT100
- DEC VT220
- DEC VT320
- DEC VT330
- WYSE 30
- WYSE 50
- WYSE 60
- WYSE 350

² National language models are supported through the use of a cartridge with ISO 8859-1 and national language keyboards.

Dials

- IBM 6094-010• (Requires 6094 cable (#4015) for attachment to a Graphics Input Device Adapter (#2810).) (Requires 6094 feature number 4060 for attachment to standard serial port.) (The 6094 feature number 4061 may be required.)

Lighted Programmable Function Keyboard

- IBM 6094-020• (Requires 6094 cable #4015 for attachment to a Graphics Input Device Adapter #2810.) (Requires 6094 feature number 4060 for attachment to a standard serial port.) (The 6094 feature number 4061 may be required.)

3D Input Device

- IBM 6094 Spaceball Model 30

X Terminals

- IBM Xstation 120
- IBM Xstation 130
- IBM Xstation 140
- IBM Xstation 150
- IBM Xstation 160
- VISUAL 640 XDS

Displays

- IBM 5081 16-Color (#1280 required)
- IBM 5081 19-Color (RPQ 8K1680 required)
- IBM 6091 016 Color
- IBM 6091 019 Color
- IBM 6091 19i Color
- IBM 6091 023 Color (Supported in 1280 x 1024 60Hz mode only)

- IBM 8508 19-Mono (Supported in 1280 x 1024 67Hz mode only)
- IBM P50 Color Monitor
- IBM P70 Color Monitor
- IBM P200 Color Monitor
- IBM P201 Color Monitor

Graphic Processors

- IBM 5085 All Models
- IBM 5086 Model 001
- IBM 5086 Model 01i
- IBM 7235 Model 001
- IBM 7235 Model 002
- IBM 7235 Model 01i
- IBM 7235 Model 02i
- IBM 7237 Model 001
- IBM 7237 Model 002
- IBM 7237 Model 003
- IBM 7250 Model 001
- IBM 7250 Model 002

Digitizers

- IBM 5084 Model 1
- IBM 5084 Model 2
- IBM 5084 Model 3

Tablets

- IBM 5083 Model 021 (Requires 5083 cable feature number 4015)
- IBM 5083 Model 022 (Requires 5083 cable feature number 4015)
- IBM 6093 Tablet Model 011 (Requires 6093 cable feature number 4015)
- IBM 6093 Tablet Model 012 (Requires 6093 cable feature number 4015)

Plotters

- IBM 6180 Model 1 Color
- IBM 6182 Color
- IBM 6184 Color
- IBM 6185 Model 1 Color
- IBM 6185 Model 2 Color
- IBM 6186 Color
- IBM 6187
- IBM 7372

Modems Modem support is provided to allow communication through common carrier telephone networks using dial-up or leased lines with asynchronous protocols or the synchronous half-duplexed SDLC or BSC protocols. Not all of the features supported by the listed modems are supported by AIX/6000 Version 3 for RS/6000.

Modems	Protocols	Standards
IBM 5822 up to 56 Kbps	SYNC	CCITT V.35
IBM 5841 1200 bps	ASYNC	SYNC
IBM 5853 2400 bps	ASYNC	SYNC
IBM 5865 9600 bps	SYNC	EIA-232D, CCITT V.24
IBM 7855 up to 19.2 Kbps	ASYNC	CCITT V.32 V.22 bis Bell 103,212

Modems	Protocols	Standards
IBM 7861 up to 19.2 Kbps	SYNC	EIA-232D, CCITT V.24
IBM 7868 up to 19.2 Kbps	SYNC	EIA-232D, CCITT V.24
Hayes Smartmodem 1200	ASYNC	EIA-232D
Hayes Smartmodem 2400	ASYNC	SDLC
Hayes V-Series 9600	ASYNC	SDLC
Racal-Vadic 1200PA	ASYNC	EIA-232D
Racal-Vadic 1200VP	ASYNC	EIA-232D
Racal-Vadic VI2422	ASYNC	EIA-232D
Racal-Vadic 2400PA	ASYNC	EIA-232D
Racal-Vadic 2400VP	ASYNC	EIA-232D
Racal-Vadic VI1222VP	ASYNC	EIA-232D
Telebit Trailblazer Plus	ASYNC	EIA-232D

Printers

- IBM 2380-001 Personal Printer II
- IBM 2381-001 Personal Printer II
- IBM 2390-001 Personal Printer II
- IBM 2391-001 Personal Printer II
- IBM 2380 Plus Printer
- IBM 2381 Plus Printer
- IBM 2390 Plus Printer
- IBM 2391 Plus Printer
- IBM 3130 Page Printer with PSF/6000™
- IBM 3812-002 Page Printer
- IBM 3816-01D and 01S Page Printer
- IBM 3825 Advanced Function Printer
- IBM 3827 Advanced Function Printer
- IBM 3829 Advanced Function Printer
- IBM 3831 Page Printer
- IBM 3835-001 Advanced Function Printer
- IBM 3835-002 Advanced Function Printer
- IBM 3900 Advanced Function Printer
- IBM 3912 Page Printer
- IBM 3916 Page Printer Models AS0, AS1, NS0, and NS1
- IBM 3930-03D and -03S Page Printers
- IBM 4019-001 LaserPrinter
- IBM 4019-E01 LaserPrinter E
- IBM 4028-NS1 and AS1 LaserPrinter
- IBM 4029-010 LaserPrinter 5E
- IBM 4029-020 LaserPrinter 6
- IBM 4029-022 LaserPrinter
- IBM 4029-030 LaserPrinter 10
- IBM 4029-040 LaserPrinter 10L
- IBM 4029-042 LaserPrinter
- IBM 4037 5E Page Printer
- IBM 4039-10R LaserPrinter 10R
- IBM 4039-10D LaserPrinter 10D
- IBM 4039-12L LaserPrinter 12L
- IBM 4039-12R LaserPrinter 12R
- IBM 4039-16L LaserPrinter 16L
- LaserPrinter 4039-12R, -12L, and -16L Plus
- IBM 4070 IJ Printer Model 1
- IBM 4072-001 ExecJet® Printer
- IBM 4076 ExecJet II Printer
- IBM 4079-001 Color JetPrinter
- IBM 4201-002 Proprinter® II
- IBM 4201-003 Proprinter III
- IBM 4202-002 Proprinter II XL

- IBM 4202-003 Proprinter III XL
- IBM 4207-002 Proprinter X24E
- IBM 4208-002 Proprinter XL24E
- IBM 4212-001 Proprinter 24P
- IBM 4216-031 Personal Page Printer II
- IBM 4224-301, 302, 3C2, and 3E3 Serial Printer
- IBM 4226-302 Printer
- IBM 4230 Impact Printer Models 4S3, 4I3, 5S3, and 5I3
- IBM 4232-302 Impact Dot Matrix Printer
- IBM 4234-009 Line Dot Matrix Printer
- IBM 4234-13 Line Dot Matrix Printer
- IBM 5202-001 Quietwriter® III
- IBM 5204-001 Quickwriter®
- IBM 6252 AP2, AS2, AP8, and AS8 Impactwriter®
- IBM 6262 A12, A14, and A22
- 6404 Line Matrix Printer
- 6408 Line Matrix Printer
- 6412 Model CTA Line Matrix Printer
- IBM 4208-502 Proprinter XL24E
- IBM 4216-510 Personal Page Printer II
- IBM 5327-011 Line Dot Matrix Kanji Printer
- IBM 5572 Model B02 Kanji Printer
- IBM 5573 Model H02 Kanji Printer
- IBM 5575 Model B02, F02, and H02 Serial Dot Matrix Kanji Printer
- IBM 5577 Model B02, F02, FU2, G02, H02, J02, and K02 Serial Dot Matrix Kanji Printer
- IBM 5579 Model H02 and K02 Kanji Printer
- IBM 5584 Model G01 and H01 Kanji Printer
- IBM 5585 Model H01 Kanji Printer
- IBM 5587 Model G01 and H01 Page Kanji Printer
- IBM 5589 Model H01 Kanji Printer
- Bull Compuprint PageMaster 1015
- Bull Compuprint PageMaster 1021
- Bull Compuprint PageMaster 1025
- Bull Compuprint PageMaster 1625
- Bull Compuprint PageMaster 200
- Bull Compuprint PageMaster 201
- Bull Compuprint PageMaster 411
- Bull Compuprint PageMaster 413
- Bull Compuprint PageMaster 422
- Bull Compuprint PageMaster 721
- Bull Compuprint PageMaster 815
- Bull Compuprint PageMaster 825
- Bull Compuprint 1070
- Bull Compuprint 4/51
- Bull Compuprint 4/54
- Bull Compuprint 914
- Bull Compuprint 914N
- Bull Compuprint 922
- Bull Compuprint 923
- Bull Compuprint 924
- Bull Compuprint 924N
- Bull Compuprint 956
- Bull Compuprint 970
- Bull PR-88
- Bull PR-88 VFU Handling
- Bull PR-90 Printer
- Canon Laser Shot LBP-A404PS/Lite
- Canon Laser Shot LBP-B406G
- Canon Laser Shot LBP-B406/S/D/E, A404/E, and A304/E
- DATAPRODUCTS LZR 2665
- DATAPRODUCTS BP 2000
- HP LaserJet Series II
- HP LaserJet Series III
- HP LaserJet Series III Si
- Lexmark 4047 5E
- OKI Microline 801PS/+F
- OKI Microline 801PSII/+F
- OKI Microline 800PSIIILT
- PRINTRONIX P9012
- QMS Colorscript 100 Model 20
- TI Omnilaser 2115

Printer Peripherals

- 4033-001 IBM LAN Connection For Printers and Plotters (Token Ring)
- 4033-002 IBM LAN Connection For Printers and Plotters (Ethernet, Twisted Pair)
- 4033-003 IBM LAN Connection For Printers and Plotters (Ethernet, Thick and Thin)
- HP JetDirect Network Attachment
- MarkNet LAN Adapters for Printers and Plotters — Models 201, 202, 301, and 302

Hardware Requirements• IBM-supported terminal or IBM-supported display, display adapter, and keyboard. POWERservers must have a console.

Software Requirements• AIX Versions 4.1.5 and 4.2 for clients and servers.

Compatibility• The following model upgrades are offered•

- 58H to the 595
- 590 to the 595
- 59H to the 595
- 591 to the 595

Model upgrades to the Model 595 preserve customers' existing serial number.

An upgraded machine must have a minimum of two memory cards totaling 64MB, or more. Total memory cards in the machine can only be installed in a pair (two cards), a quad (four cards), or two quads (eight cards). Any pair or any quad must be of the same capacity. First quad and second quad can be different capacities.

Supports S4.6 and S5.0 memory.

Model upgrades to the Model 595 require the following items•

- Replace CPU and I/O Planars
- Replace specify SCSI DASD cable with new base SCSI DASD cable
- Add DC/DC converter
- New mechanicals include I/O label and bulkhead bracket, I/O slots designation warning label, air baffles, bulkhead, and DC/DC bracket
- AIX Version 4.1.5 or 4.2 is required

Replaced parts become the property of IBM and must be returned.

Some older 7013-500 series system features may not be supported when upgrading to the Model 595. Contact your IBM representative to perform a prerequisite analysis of the system features required for installation before the upgrade is scheduled.

Limitations

Limitations for I/O

- Multicard I/O adapters cannot straddle Micro Channel buses. These adapters are•
 - S/390 ESCON Channel Emulator — Feature number 2754
 - ESCON Control Unit Adapter — Feature number 2756
 - FDDI Fiber Dual Ring — Feature numbers 2723 and 2724
 - FDDI STP Dual Ring — Feature numbers 2726 and 2725
 - HiPPI — Feature number 2735 (only three additional MCA adapters are allowed on a 595 with HiPPI installed)

- The following MCA adapters must be installed in the primary Micro Channel bus (slots 0/1 through 0/4 only)•
 - Gt4xi 24-bit MCA graphics adapter — Feature number 2712
 - Gxt150m 8-bit MCA graphics adapter — Feature number 2650
 - Gt3i 8-bit MCA graphics adapter — Feature number 2768
 - GXT1000™ MCA attachment adapter — Feature number 2820
 - Ultimedia audio adapter — Feature number 6302
 - Ultimedia Video I/O adapter — Feature number 2404
 - Digital trunk adapter — Feature number 6300
 - Digital trunk dual adapter — Feature number 6305
- The following Media device restrictions apply to Model 595•
 - Base 8X Speed CD-ROM (#9608) must be installed in media bay “C”.
 - Additional 8X Speed CD-ROM (#2618) can be installed in media bays “A” or “B”.
 - Maximum of one 8-mm Tape Drive (#6147) can be installed in media bay “A” only.
 - Maximum of two 4-mm Tape Drive (#6142) can be installed in media bays “A” and/or “B”.
 - Maximum of one 8-mm Tape Drive (#6147) and one 4-mm Tape Drive (#6142) allowed per system. The 8-mm tape drive must be installed in media bay “A”.

Planning Information

Cable Orders• No cables required

Security, Auditability, and Control

Security and auditability features of this product include•

- Physical security provided by a rear-mounted lock that helps prevent cover removal when locked.
- A three-position, key-operated MODE switch that helps provide logic security for the system.

This product uses the security and auditability features of host hardware, software, and application software.

User management is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Terms and Conditions

This product is available for purchase under the terms of the IBM Customer Agreement (ICA).

IBM hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, IBM’s warranty terms apply.

Volume Orders• For information regarding volume orders, contact your IBM representative.

IBM Credit Corporation Financing• Term leases and installment payment plans are available for commercial and state and local government customers.

Warranty Period• One year

Warranty Service• IBM On-Site Repair (IOR)

Maintenance Service• IOR

Attachment for Rental of IBM Machines• IOR

IBM Hourly Service Rate Classification• Two

IBM Warranty Service, Maintenance Service, or IBM Hourly Service can be obtained by calling 800-IBM-SERV (426-7378). IBM Hourly Service is available at the applicable rate and terms, including element exchange price, if applicable.

Mid-Range System Option• The announced product is an eligible machine for the Mid-Range System Option* of the ICA.

Eligible Types	Discount	
	Three-Year	Five-Year
Machine Type 7013	12%	17%

Corporate Service Option• The announced product is an eligible machine for the Corporate Service Option* of the ICA.

Option	Discount	
	Three-Year	Five-Year
Network System	15%	20%
System	12%	17%

Extended Maintenance Option• The announced product is an eligible machine under the Extended Maintenance Option of the IBM Customer Agreement.

When a type of service involves the exchange of a Machine or part, the replacement may not be new, but will be in good working order.

* A revised exhibit will be available at a later date.

Product Availability Status• New product available

Field Installable Features• Yes

Model Conversions• Yes

Customer Setup• No

Graduated Charges• The announced product is in Processor Group F5 for software with graduated charges.

Educational Allowance• A reduced charge is available to qualified education customers. The educational allowance may not be added to any other discount or allowance.

Description	Feature Numbers	Purchase Price	Description	Feature Numbers	Purchase Price
IBM Auto Token-Ring LANStreamer			Keyboard — 106 Keys		
32 MC Adapter	2972	\$ 850	Japanese — Kanji	6030	\$ 325
X.25 Attachment Cable X.21 —			Korean	6031	325
6 meter (20 feet)	2976	150	Chinese Traditional —		
X.25 Attachment Cable V.24 —			Taiwan	6033	325
6 meter (20 feet)	2977	150	Keyboard — Dutch #143		
X.25 Attachment Cable V.35 —			(Netherlands)	6034	360
6 meter (20 feet)	2978	239	Keyboard — Turkish #440	6035	360
TURBOWAYS 155 ATM Adapter	2989	2,695	Three-Button Mouse	6041	75
Ethernet/FDX 10 Mbps			CD-ROM to 5GB 8-mm		
TP/AUI MC Adapter	2992	595	Tape Select	6141	4,700
Ethernet/FDX 10 Mbps			4GB/8GB 4-mm Internal		
BNC/AUI MC Adapter	2993	595	Tape Drive	6142	2,695
Multiport Interface Cable	2995	384	CD-ROM-2 to 4GB 4-mm		
16-Port Interface Cable —			Tape Drive Select	6145	2,000
EIA-232	2996	295	5GB/10GB 8-mm Internal		
16-Port Interface Cable —			Tape Drive	6147	5,395
EIA-422-A	2997	639	Cluster Power Controller	6175	3,100
2.2GB SCSI-2 Fast/Wide			Null Modem Cable• CPC to TTY	6176	70
Disk Drive	3033	2,000	Null Modem Cable• CPC to CPC	6177	75
4.5GB SCSI-2 Fast/Wide			Null Modem Cable• CPC to CPU	6178	45
Disk Drive	3034	2,950	High Performance 4-Port		
4.5GB SCSI-2 Fast/Wide			SSA Adapter	6214	1,370
Disk Drive Select	3049	950	Enhanced 4-Port SSA Serial		
PC Parallel Printer Cable	3100	48	Adapter, MCA	6216	2,000
Serial to Serial Port Cable			Digital Trunk Adapter	6300	1,200
for Drawer/Drawer	3124	80	Digital Trunk Dual Adapter	6305	2,400
Serial to Serial Port Cable			3.5-Inch Disk Drive		
for Rack/Rack	3125	80	Mounting Hardware	6501	NC
SCSI Device to Device Cable	3130	78	Incremental Cooling Fan	6506	NC
P50 Color Monitor	3612	800	IBM Realtime Interface		
P70 Color Monitor	3613	1,485	Co-Processor• Portmaster		
P200 Color Monitor	3614	2,660	Adapter/A (1MB)	7006	1,595
P201 Color Monitor	3615	3,660	IBM Realtime Interface		
64MB S5 Memory Select	4057	2,080	Co-Processor• 8-Port RS-232		
128MB S5 Memory Select	4058	6,240	Interface Board/A	7042	627
256MB S5 Memory Select	4059	15,600	IBM Realtime Interface		
32MB S5 Memory	4076	2,080	Co-Processor• 8-Port RS-422		
64MB S5 Memory	4077	4,160	Interface Board/A	7044	673
128MB S5 Memory	4078	8,320	IBM Realtime Interface		
256MB S5 Memory	4079	16,640	Co-Processor• 6-Port V.35		
13W3 to 15-Pin D-Shell			Interface Board/A	7046	1,227
Converter Cable	4213	100	IBM Realtime Interface		
13W3 to 60/77Hz Display Cable	4214	105	Co-Processor• 6-Port		
Ethernet 10BaseT Transceiver	4224	195	V.35 Cable	7106	848
Sun Compatible Display			IBM Realtime Interface		
Converter Cable	4227	100	Co-Processor• V.35		
13W3 to 13W3 Display Cable	4234	100	Network Cable	7107	150
13W3 to 3W3 Display Cable	4236	100	IBM Realtime Interface		
Software Preinstall	5005	NC	Co-Processor• 8-Port		
64MB Memory SIMM Kit	5064	4,160	EIA-232/422 Cable	7108	375
128MB Memory SIMM Kit	5128	8,320	IBM Realtime Interface		
Keyboard — 101 Keys (U.S.)	6010	195	Co-Processor• X.21		
Keyboard — 102 Keys			Network Cable	7111	125
Belgian-Dutch/French	6011	360	128-Port Asynchronous		
Canadian French	6012	280	Controller	8128	1,295
Danish	6013	360	Remote Asynchronous Node		
Finnish	6014	360	16-Port EIA-232 (U.S.)	8130	1,495
French	6015	360	128-Port Asynchronous Controller		
German	6016	360	Cable, 4.5 meter	8131	60
Italian	6017	360	128-Port Asynchronous Controller		
Norwegian	6019	360	Cable, 23 cm (9 in)	8132	40
Portuguese	6020	360	RJ-45 to DB-25 Converter Cable	8133	120
Spanish	6021	360	64-Port to 128-Port		
Swiss	6022	360	Pin-Out Converter	8135	45
United Kingdom —			Rack Mountable Remote		
English	6023	360	Asynchronous Node		
Icelandic	6024	360	16-Port EIA-232	8136	1,995
Turkish	6025	360	Southern Hemisphere Specify		
Greek	6026	360	for Monitors	9004	NC
Hebrew	6027	360	32MB S5 Memory Specify	9076	NC
Arabic	6028	360	2.2GB SCSI-2 Fast/Wide Disk		
			Drive Specify	9131	NC

Description	Feature Numbers	Purchase Price
3.5-Inch 1.44MB Diskette Drive Specify	9221	NC
Language Group Specify — U.S. English	9300	NC
Language Group Specify — Canadian French	9712	NC
Power Cord Specify — United States/Canada	9800	NC
Power Cord Specify — Chicago (125 V, 15 A) (1.8 m) (6 ft)	9986	NC

NC = No Charge

Model Conversion Purchase Prices

Model From	Model To	Model Conversion Purchase Price+
58H	595	\$17,900
590	595	17,900
59H	595	17,900
591	595	17,900

+ Parts removed or replaced become the property of IBM and must be returned.

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To order, contact IBM Direct, your local IBM representative, or your IBM Authorized Business Partner.

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