

## IBM RISC System/6000 Model 41T and 41W Graphics Workstations

The RISC System/6000® Models 41T and 41W graphics workstations are PowerPC™-based desktop systems that are binary-compatible with the RISC System/6000 family. The new workstations support the widest range of graphics configurations in the RISC System/6000 family.

The RISC System/6000 Models 41T and 41W graphics workstations include the new, faster 80MHz PowerPC 601™ processor, 16MB memory (expandable to 256MB), 540MB SCSI-2 disk drive, POWER GXT150L™ graphics adapter, and the option to select from a range of 3D graphics options, keyboard, and mouse. The RISC System/6000 Model 41T workstation also includes a POWERdisplay 17, featuring a Trinitron\*\* CRT, with a maximum viewable image size of 16.1 inches (409 mm) measured diagonally.

The RISC System/6000 Models 41T and 41W graphics workstations feature a larger desktop design. The design, new to the RISC System/6000 family, contains two disk drive bays for up to 3GB internal disk capacity, two Micro Channel® slots and two "short" Micro Channel slots for multimedia and other "short" adapters, a local bus graphics expansion slot, a diskette drive bay, and a 5.25-inch media bay (for CD-ROM-2 or tape devices). One of the disk drive bays can be used instead to support a second tape or CD-ROM device. Standard ports include Ethernet, SCSI-2, serial, parallel, mouse, keyboard, and tablet. In addition, a 0.5MB L2 (Level 2) Cache memory option is available for applications requiring increased performance.

The POWER GXT150L graphics adapter is also announced for the IBM RISC System/6000 Models 41T and 41W graphics workstations. This 8-bit, 256-color graphics adapter attaches directly to the PowerPC 601 local bus graphics expansion slot and provides industry leadership in 2D graphics performance. The POWER GXT150L offers 1,280 x 1,024, 1,152 x 900, and 1,024 x 768 resolution support, three color palettes, and hardware window support.

### IN BRIEF . . .

#### IBM RISC System/6000 Models 41T and 41W

- ◆ Provide new IBM RISC System/6000 graphics workstations based on the PowerPC Architecture® with an 80MHz PowerPC 601 processor
- ◆ Offer an optional L2 Cache for applications requiring increased performance
- ◆ Include the fastest 2D graphics available in the industry and a wide range of 3D graphics options
- ◆ Provide larger packaging with more slots and bays than the 200 series
- ◆ Designed to accommodate future graphics and multimedia enhancements

Description	Planned Availability Date	Purchase Price
IBM RISC System/6000 Model 41T	June 3, 1994	\$11,200
IBM RISC System/6000 Model 41W	June 3, 1994	9,995
0.5MB L2 Cache option	June 24, 1994	1,500
POWER GXT150L Graphics Adapter	June 3, 1994	1,695

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## Description

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The IBM RISC System/6000 Models 41T and 41W graphics workstations are high-performance workstations. They include an 80MHz PowerPC 601 processor and standard graphics adapter for network and stand-alone graphics workstation configurations.

Standard features for the RISC System/6000 Models 41T and 41W graphics workstations are:

- 80MHz PowerPC 601 processor
- POWER GXT150L graphics adapter
- 540MB SCSI-2 disk drive
- Integrated Ethernet<sup>1</sup> Controller
- Integrated SCSI-2 I/O Controller for up to three internal and two external SCSI or SCSI-2 devices (8 bit)
- 16MB ECC Memory
- Keyboard
- Mouse

<sup>1</sup> Standard with the RISC System/6000 Models 41T and 41W graphics workstations is the ability to attach the Ethernet controller to either Thick or Twisted Pair Ethernet media. For connection to Thick (10 Base 5) Ethernet media, the output connector is a Thick 15-pin D-shell "slide-latch" type that is compatible with IEEE 802.3 section 7.6. For connection to Twisted Pair (10 Base T) Ethernet media, use the additional converter that is shipped standard with Models 41T and 41W. For connection to Thin (10 Base 2) Ethernet media, use an optional external transceiver (#4223).

In addition, the Model 41T includes an IBM POWERdisplay 17 and graphics display cable.

The POWERdisplay 17, featuring a Trinitron CRT, has a maximum viewable image size of 16.1 inches (409 mm) measured diagonally.

Other standard characteristics of the RISC System/6000 Models 41T and 41W graphics workstations are:

- Local bus graphics expansion slot
- Expandability to add 0.5MB L2 Cache for higher performance
- Two Type 3 Micro Channel Slots
- Two "short" Micro Channel Slots for multimedia and "short" adapters
- Micro Channel bus supports peak transfer rates up to 80MB per second
- One 2.88MB diskette drive bay
- One 25 mm (half height) 3.5-inch disk drive bay for 540MB or 1GB disk drives
- One 43 mm (full height) universal media or disk drive bay for 540MB, 1GB, or 2GB disk drives, tape, or CD-ROM-2 media devices
- One 43 mm (full height) media bay for CD-ROM-2 or tape devices
- Eight SIMM memory slots for expansion to 256MB
- One serial port standard, expandable to two serial ports with optional serial port converter cable
- Parallel port
- Keyboard, mouse, and tablet ports
- Vertical stand for customers wanting to reduce footprint

Select options are available that allow you to replace a standard feature with a higher-function feature on additional machine orders. These select options allow a richer configuration system than the base model on the initial order. They include:

- Selects to one of the following 3D graphics options:
  - POWER Gt4e™, POWER Gt4i, POWER Gt4xi, POWER GTO™ Accelerator, or 7250 Attachment

Adapter (for attachment to the POWER GXT1000™)

- Selects to one of the following disk options:
  - 1GB or 2GB
- Selects to one of the following memory options:
  - 32MB, 64MB, or 128MB

Additional memory can also be added in increments of 8MB, 16MB, 32MB, 64MB, and 128MB for a maximum of 256MB memory.

- Select to IBM POWERdisplay 20 (Model 41T only)

The POWERdisplay 20, featuring a Trinitron CRT, has a maximum viewable image size of 19.1 inches (486 mm) measured diagonally.

### **POWER GXT150L Graphics Adapter**

This graphics adapter is designed for superior 2D performance in an AIXwindows® 2D environment.

The POWER GXT150L graphics adapter is an 8-bit single buffer, 256-color, graphics adapter that attaches to the PowerPC 601 local bus graphics expansion slot and does not use a Micro Channel slot. When used in conjunction with the AIXwindows 3D feature and Softgraphics, it provides cost-effective 3D performance. This is made possible through a design that interfaces video memory and a unique graphics accelerator chip directly to the PowerPC 601 local bus graphics expansion slot. The POWER GXT150L is similar to the previously announced POWER GXT150, but has been designed to fit into the larger graphics expansion slot in the RISC System/6000 Models 41T and 41W graphics workstations.

The POWER GXT150L graphics adapter provides 1280 x 1024, 1152 x 900, and 1024 x 768 resolution support, three color palettes, and hardware window support.

The POWER GXT150L requires AIXwindows Environment/6000 Version 1.2.5 2D (support for X11R5), or later, and AIX® Version 3.2.5 for RISC System/6000. Refer to Software Announcement 293-489, dated September 21, 1993, for more details on AIXwindows and Softgraphics.

Characteristics:

- Low-cost, high-performance graphical interface acceleration
- 2D hardware acceleration for:
  - Points
  - Lines
  - Triangles
  - Rectangles
  - Quadrilaterals
  - Bit block transfer
- Pattern fill support
- Rectangular and non-rectangular clipping
- 60 to 77Hz refresh modes
- 1280 x 1024, 1152 x 900, and 1024 x 768 resolution
- 256 colors from a palette of 16 million
- Three color palettes
- Hardware window support
- Meets ISO 9241 Part 3 on appropriate displays
- Maximum of one adapter per system can be installed

### **Business Solutions**

The RISC System/6000 Models 41T and 41W graphics workstations support customers' business objectives by providing a high-performance, desktop graphics workstation solution for compute-intensive technical

applications. Both workstation models are ideally suited to 2D environments where high-performance and low-cost per seat are important. With the AIXwindows 3D feature, Softgraphics support is provided to enable full-function 3D graphics capability on all supported graphics adapters, including the POWER GXT150L graphics adapter. This feature provides cost-effective and scalable graphics performance and consistent functions for the entry 3D environments. When configured with either a POWER Gt4e, POWER Gt4i, POWER Gt4xi, POWER GTO, or new 7250 POWER GXT1000 graphics and appropriate software, more demanding 3D applications are enabled. Memory capacity of up to 256MB and internal disk capacity of up to 3GB, coupled with a variety of input/output devices, graphics, and communications features are available to configure the system as a powerful workstation for a wide range of graphics solutions.

**Investment Protection**

The RISC System/6000 Models 41T and 41W graphics workstations with AIX/6000™ 3.2.5, offer interoperability with other IBM and other vendor systems, expanding the usefulness of those systems and maximizing the utility of the new models.

The RISC System/6000 Models 41T and 41W graphics workstations, with their PowerPC 601 processor offer outstanding fixed-point processing and floating-point processing for the entry workstation market.

**User Productivity**

The RISC System/6000 Models 41T and 41W graphics workstations support the AIXwindows Environment/6000, which is based on the MIT (Massachusetts Institute of Technology) X Window System. They include a graphical user interface based on OSF/Motif.\*\* Through the use of industry-standard OSF/Motif, savings may be realized in end-user training and application development. Additionally, savings in hardware may be realized through the use of LAN-attached Xstations to reduce cost per seat.

**Growth Enablement**

The RISC System/6000 Models 41T and 41W graphics workstations are designed to grow with the customer's requirements. Memory can be increased to a maximum of 256MB. An optional 0.5MB L2 Cache feature can be added to provide increased performance. The integrated SCSI-2 controller attaches up to three internal and two external SCSI or SCSI-2 Devices. Three bays are provided that allow installation of two disk drives and one media device, or two media devices and one disk drive. The first bay (25 mm) can accommodate a 540MB or 1GB disk drive. The second bay (43 mm) can accommodate a 540MB, 1GB, or 2GB disk or a 5.25-inch media device. The third bay can accommodate one 5.25-inch media device. Current media choices include CD-ROM-2, 8 mm tape, 4 mm tape, and ¼-inch tape devices.

**Disk and Media Bay Configurations:**

BAY #1 3.5-inch diskette only	BAY #3 5.25-inch media CD-ROM or tape
BAY #2 3.5-inch disk drive (25 mm high) 540MB or 1GB	BAY #4 5.25-inch media or disk drive (43 mm high) 540MB, 1GB, 2GB CD-ROM or tape

Additional external devices can be attached, and by using SCSI-2 Fast/Wide Differential Adapter/A (#2416) and external disk storage expansion units, up to 31GB of total disk storage can be configured. The integrated Ethernet controller and the local bus graphics expansion slot for graphics adapters allow the user to have a LAN attachment and additional I/O devices and graphics without utilizing any of the Micro Channel slots.

Two Micro Channel feature card slots are available for additional features such as a token-ring adapter, communications processors, and high-performance 3D graphics processors. Two additional "short" Micro Channel slots are available for smaller Micro Channel cards such as multimedia and other adapters. Currently available "short" Micro Channel adapters include the M-Audio Capture and Playback Adapter (#6301), SCSI-2 Fast/Wide Adapter/A (#2415), and 3270 Connection Adapter (#2990, #2991).

While offering significant performance improvements over rival products, Models 41T and 41W provide a high-performance, cost-effective workstation solution for applications such as software development, technical publishing, and CAD. Models 25T and 25W work in stand-alone or LAN-based configurations.

Models 41T and 41W offer binary-compatibility with the RISC System/6000 family of systems, providing both investment protection and scaleability. AIX/6000 provides a robust, stable, and common environment for RISC System/6000 clients and servers today. As customer requirements and technology evolve into areas such as next-generation multimedia database applications, the 41T and 41W have the performance to adapt with customer requirements.

With the POWER GXT150L graphics adapter, the workstation models are ideally suited to environments where high-performance and low-cost per seat are important. By adding the AIXwindows 3D feature with Softgraphics, this product provides effective price/performance solutions for some 3D applications. Refer to Software Announcement 293-489, dated September 21, 1993, for additional information on supported interfaces and recommended environments for Softgraphics.

Models 41T and 41W provide a tremendous amount of computing power in a compact package. Their compute performance is greater than several other RISC System/6000 desktop and desktop units. Customers will need to evaluate the trade-offs between compute performance, price, and I/O expansion capability. For uses such as file servers, some customers will be better served by selecting a desktop system because of its greater I/O expansion capabilities.

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**Statement of General Direction**

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IBM intends to make the 80MHz PowerPC 601 available for the RISC System/6000 200 series. Existing models in the 220, 230, or 250 series will be upgradeable to the 80MHz PowerPC 601-based level.

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**Publications**

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The following publications are shipped with the product. Additional copies are available for a fee.

Title	Order Number
7006 Graphics Workstation Operator Guide	SA23-2718
7006 Graphics Workstation Hardware Setup Procedure	SA23-2720
Documentation Overview	SC23-2456
System Unit Safety Information	SA23-2652

The following publications are updated and available for a fee. To order, contact your IBM representative.

Title	Order Number
7006 Graphics Workstation Service Guide	SA23-2719
IBM RISC System/6000 System Overview and Planning	GC23-2406
POWERstation™ and POWERserver™ Common Diagnostics and Service Guide	SA23-2687
Customer Support Information	SA23-2690
CD-ROM Hypertext Information	
Base Library for AIX Version 3.2	SC23-2163
Problem Solving Guide and Reference	SC23-2204
Quick Reference	SC23-2401
Getting Started	GC23-2521

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

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## Technical Information

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### *Specified Operating Environment*

#### *Physical Specifications:*

- Width: 447 mm (17.6 inches)
- Depth: 451 mm (17.8 inches)
- Height: 119 mm (4.7 inches)
- Weight: 12.7 kg (28 pounds)
- Thermal Output:
  - 290 Btu per hour (typical configuration)
  - 85 joules/second (typical configuration)
  - 512 Btu per hour (maximum configuration)
  - 150 joules/second (maximum configuration)
- Noise Level and Sound Power
  - 5.2 Bel sound power (operating — upper limit, typical configuration)
  - 5.0 Bel sound power (idle — upper limit, typical configuration)
  - 39dBA sound pressure — operating (mean one-meter position)
  - 38dBA sound pressure — idle (mean one-meter position)
- EMC Conformance Classification
  - USA: FCC Class A
  - Japan: VCCI-1
  - Europe: CISPR 22 Class A

**Environmental:** The RISC System/6000 Models 41T and 41W graphics workstations were developed in compliance with corporate policy letter number 139 (Environmental Affairs).

**Environmental Impact Assessment:** 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. — UL
- Canada — CNL (CSA or cUL)
- Germany/Europe — GS Mark (Safety, TUV, EN60 950)

#### **Operating Environment:**

- Temperature: 16°C to 32°C (60°F to 90°F)
- Relative Humidity: 8% to 80%
- Wet Bulb: 23°C (73°F)
- Operating Voltages:
  - 100-127 V AC 50/60Hz
  - 200-240 V AC 50/60Hz
- Output in Watts: 272
- Power Source Loading:
  - 0.130 KVA (typical configuration)
  - 0.232 KVA (maximum configuration)

#### **Hardware Requirements:**

- A RISC System/6000 display adapter and keyboard (standard).
- For stand-alone configurations, a disk drive and diskette are required. Diagnostics must be run from a diskette drive, CD-ROM-2, or disk drive for stand-alone systems.

**Software Requirements:** AIX Version 3.2.5 for RISC System/6000 and additional program temporary fixes (PTF). These PTFs are included on all AIX Version 3.2.5 orders shipped after June 3, 1994, labeled AIX 3.2.5 (3250-04-01). Refer to the Memo to Users for details on installing these PTFs referenced in APAR number IX42627.

AIX/6000 applications written for POWER-based RISC System/6000s will run on the new RISC System/6000 Models 41T and 41W graphics workstations without recompilation. The only exception to this would be applications written using kernel extensions that use certain privileged Assembler instructions. IBM is not aware of any applications using these instructions. Additional performance can be achieved by recompiling with the latest versions of the IBM XL compilers to further exploit the PowerPC technology.

Applications compiled using a compiler option to exploit the PowerPC technology may not function properly on systems that do not employ that technology. Customers with any combination of POWER-, POWER2™- and PowerPC 601-based systems can continue to run their applications unmodified. Applications that are to be used in a mixed processor environment should be compiled using the POWER or common mode options available in the new XL compilers or any other compilers that support those options.

**Additional Software Requirements for Graphics:** AIXwindows Environment/6000 Version 1.2.5 (support for X11R5), or later, is required for installation of these graphics adapters. For customers requiring 3D capability on a 2D graphics adapter, the AIXwindows/3D feature is required. Refer to Software Announcement 293-489, dated September 21, 1993, for specific programming requirements.

**Storage Limits:** Storage configurations can be maximized for various combinations of storage adapters and subsystems. The following chart shows the maximum disk capacity for example configurations. The **Assumptions** section defines each controller/subsystem combination. The **Limit Values** section shows the individual maximum number of each controller or subsystem supported.

**Assumptions**

SCSI-2 SE or SCSI-2 Fast/Wide SE Controller:  
One 9334-500

$$1 \times 2\text{GB} + 3 \times 2.41\text{GB} = 9.23\text{GB}$$

SCSI-2 DIFF or SCSI-2 Fast/Wide DIFF Controller:  
Up to Two 9334-501

9334-501 (1st): 4x2GB = 8GB  
9334-501 (2ND): 3x2GB = 6GB  
(Calculate as 7.0GB/9334)

Description	Limit Values
Integrated SCSI-INT Media and Disk Drives	2 — SCSI-2 Fast/Wide DIFF Controller 2 — SCSI-2 Fast/Wide SE Controller
4 I/O Slots	2 — SCSI-2 DIFF Controller 2 — SCSI-2 SE Controller 2 — SCSI-2 SE + SCSI-2 DIFF + SCSI-2 F/W SE + SCSI-2 F/W DIFF

**Calculated Storage Limits:**

Internal SCSI	External SCSI (9334-500)	External SCSI-DE (9334-501)	External SCSI-DE	Total Disk Storage
3.0GB	—	—	—	3.0GB
3.0GB	18.5GB	—	—	21.5GB
3.0GB	—	28.0GB	—	31.0GB

**Planning Information**

**Cable Orders:** No additional cables are required with the base machine. Up to two external SCSI or SCSI-2 devices can be attached to the integrated SCSI-2 controller, with a maximum total external cable length of 2.5 meters.

**Memory Configurations:** The RISC System/6000 Models 41T and 41W graphics workstations achieve exceptional performance using memory SIMMs. This exceptional performance is accomplished by interleaving memory access across two banks of double-word wide memory. This means that memory is addressed in groups of four SIMMs. Because of this use of memory, the RISC System/6000 Models 41T and 41W graphics workstations require that memory SIMMs be installed in groups of four. All SIMMs in a group must be the same size.

**Cables Required for Use with Displays:** The Model 41T is shipped with an appropriate display cable. Refer to the

following table to determine the appropriate IBM cable feature number to order for the Model 41W.

IBM Displays	Type	Resolution	Refresh Hz	Cable Feature
8508	Mono	1280 x 1024	67	4213
6091-023	Color	1280 x 1024	60	4214

The 6091-023 display, featuring a Trinitron CRT, has a fixed image size of 21.4 inches (544 mm) measured diagonally.

6091-019	Color	1280 x 1024	60	4214
	Color	1280 x 1024	67	4214

The 6091-019 display, featuring a Trinitron CRT, has a fixed image size of 17.3 inches (439 mm) measured diagonally.

6091-19i	Color	1280 x 1024	77	4214
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The 6091-19i display, featuring a Trinitron CRT, has a fixed image size of 17.3 inches (439 mm) measured diagonally.

6091-016	Color	1280 x 1024	60	4214
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The 6091-016 display, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.

POWERdisplay 20	Color	1280 x 1024	77	4214
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The POWERdisplay 20, featuring a Trinitron CRT, has a maximum viewable image size of 19.1 inches (486 mm) measured diagonally.

POWERdisplay 17	Color	1280 x 1024	60	4214
	Color	1024 x 768	75	4214
	Color	1024 x 768	70	4214

The POWERdisplay 17, featuring a Trinitron CRT, has a maximum viewable image size of 16.1 inches (409 mm) measured diagonally.

POWERdisplay 19	Color	1280 x 1024	77	4214
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The POWERdisplay 19, featuring a Trinitron CRT, has a maximum viewable image size of 17.3 inches (439 mm) measured diagonally.

POWERdisplay 16	Color	1280 x 1024	60	4214
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The POWERdisplay 16, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.

POWERdisplay 16S	Color	1280 x 1024	72	4229
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The POWERdisplay 16S, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.

1091-051(16)	Color	1280 x 1024	72	4229
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The 1091-051 display, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.

5081-016	Color	1280 x 1024	60	4214
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The 5081-016 display, featuring a Trinitron CRT, has a fixed image size of 14.9 inches (377 mm) measured diagonally.

8517	Color	1024 x 768	70	4213
6314	Color	1024 x 768	70	4213
6319	Color	1024 x 768	60	4213

IBM Displays	Type	Resolution	Refresh Hz	Cable Feature	Vendor Displays	Type	Resolution	Refresh Hz	Cable Feature
6317	Color	1280 x 1024	60	4213	Mitsubishi HL/FL6615	Color	1280 x 1024	60	4214
	Color	1024 x 768	75	4213		Color	1024 x 768	70	4214
	Color	1024 x 768	70	4213		Color	1024 x 768	60	4214
	Color	1024 x 768	60	4213					

IBM Displays	Type	Resolution	Refresh Hz	Cable Feature
6324	Color	1024 x 768	75	4213
6325	Color	1280 x 1024	60	4213
6327	Color	1024 x 768	70	4213
9524	Color	1024 x 768	60	4213

The 9524 display features a CRT with a maximum viewable image size of 13.03 inches (331 mm) measured diagonally.

9525

The 9525 display, featuring a Flatter Squarer Tube (FST) CRT, has a maximum viewable image size of 13.7 inches (348 mm) measured diagonally.

6325	Color	1024 x 768	75	4213
9521	Color	1024 x 768	75	4213

The 9521 display, featuring a Diamondtron CRT, has a maximum viewable image size of 19.1 inches (485 mm) measured diagonally.

9527	Color	1280 x 1024	60	4213
	Color	1280 x 1024	77	4213
	Color	1024 x 768	70	4213
	Color	1024 x 768	60	4213

The 9527 display, featuring a Trinitron CRT, has a maximum viewable image size of 19.1 inches (391 mm) measured diagonally.

Vendor Displays	Type	Resolution	Refresh Hz	Cable Feature
Sun	Color	1152 x 900	76	4227
	Color	1152 x 900	66	4227
Mitsubishi HL6915	Color	1280 x 1024	60	4214
	Color	1024 x 768	70	4214
	Color	1024 x 768	60	4214
Nanao 9070U	Color	1024 x 768	60	4214
NEC 4D	Color	1024 x 768	70	4214
		1024 x 768	60	
NEC 5D	Color	1280 x 1024	60	4214
	Color	1024 x 768	70	4214
	Color	1024 x 768	60	4214
IDEK MF5117	Color	1024 x 768	60	4214
SONY GDM1953	Color	1280 x 1024	60	4214
SONY GDM1954	Color	1024 x 768	60	4214
SONY GDM1605	Color	1024 x 768	60	4214
SONY GDM1606	Color	1280 x 1024	60	4214

NEC 5FG/ 6FG	Color	1280 x 1024	74	4214
	Color	1024 x 768	75	4214
Goldstar VGA1465	Color	1024 x 768	60	4213
Hyundai SVGA	Color	1024 x 768	60	4213
NEC 3FGx	Color	1024 x 768	60	4213
Panasonic C1395	Color	1024 x 768	60	4213

## Supported Devices

### External Storage Machines

- IBM 7203 Model 001 Portable Disk Unit
- IBM 7204 Model 320 320MB External Disk Drive
- IBM 7204 Model 001 1.0GB External Disk Drive
- IBM 7204 Model 215 2.0GB External Disk Drive
- IBM 7204 Model 010 1.0GB External Disk Drive
- IBM 7204 Model 315 2.0GB 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 ¼-inch Tape Drive
- IBM 7207 Model 011 525MB External ¼-inch Cartridge Tape Drive
- IBM 7207 Model 012 1.2GB External ¼-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 R/W Optical Disk Drive
- IBM 7209 Model 002 1.19GB R/W Optical Disk Drive
- IBM 7210 Model 001 External CD-ROM Drive<sup>2</sup>
- IBM 7210 Model 005 External CD-ROM Drive
- IBM 9334 Model 500 Deskside Expansion Unit<sup>3</sup>
- IBM 9334 Model 501 Deskside Expansion Unit<sup>3</sup>
- IBM 9348 Model 012 Magnetic Tape Unit ½-inch, 9-track Tape Drive

<sup>2</sup> New installations should choose the IBM 7210 Model 005 External CD-ROM Drive. For existing installations, only later units of the IBM 7210 Model 001 External CD-ROM Drive can be attached using the integrated SCSI-2 port. Earlier units of the IBM 7210 Model 001 External CD-ROM Drive should be attached using an optional SCSI-2 High-Performance External I/O Controller (#2410). These early units may be identified as having a "Type A" front bezel (as described in the 7210 External CD-ROM Drive Operator Guide) with the Eject button in the upper right corner. The later units ("Type B" front bezel) have the Eject button in the lower right corner.

<sup>3</sup> Requires dedicated SCSI I/O Controller.

### Graphics Subsystems

- IBM 7250 POWER GXT1000 Model 001
- IBM 7250 POWER GXT1000 Model 002
- IBM POWER GTO 7235 Model 001
- IBM POWER GTO 7235 Model 002

### 3D Input Device:

- IBM 6094 Spaceball Model 30

## **X Stations**

- IBM 7010 Model 120
- IBM 7010 Model 130
- IBM 7010 Model 140
- IBM 7010 Model 150

## **IBM Displays**

- POWERdisplay 16S (#3603): The POWERdisplay 16S, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.
- POWERdisplay 16 (#3600)  
The POWERdisplay 16, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.
- POWERdisplay 17 (#3607)  
The POWERdisplay 17, featuring a Trinitron CRT, has a maximum viewable image size of 16.1 inches (409 mm) measured diagonally.
- POWERdisplay 19 (#3606)  
The POWERdisplay 19, featuring a Trinitron CRT, has a maximum viewable image size of 17.3 inches (439 mm) measured diagonally.
- POWERdisplay 20 (#3608)  
The POWERdisplay 20, featuring a Trinitron CRT, has a maximum viewable image size of 19.1 inches (486 mm) measured diagonally.
- IBM 1091-051 Color Display (1024 x 1280, 72Hz NI)  
The 1091-051 display, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.
- IBM 5081-016 Color Display (1024 x 1280, 60Hz only)<sup>4</sup>
  - Feature number 1280 requiredThe 5081-016 display, featuring a Trinitron CRT, has a fixed image size of 14.9 inches (377 mm) measured diagonally.
- IBM 6091-016 Color Monitor (1280 x 1024, 77Hz)  
The 6091-016 display, featuring a Trinitron CRT, has a fixed image size of 14.8 inches (375 mm) measured diagonally.
- IBM 6091-019 Color Display (1280 x 1024, 60Hz NI and 1280 x 1024, 67Hz NI)  
The 6091-019 display, featuring a Trinitron CRT, has a fixed image size of 17.3 inches (439 mm) measured diagonally.
- IBM 6091-19i Color Display (1280 x 1024, 60Hz, 77Hz)<sup>4</sup>  
The 6091-19i display, featuring a Trinitron CRT, has a fixed image size of 17.3 inches (439 mm) measured diagonally.

- IBM 6091-023 Color Display (1280 x 1024, 60Hz NI only)

The 6091-023 display, featuring a Trinitron CRT, has a fixed image size of 21.4 inches (544 mm) measured diagonally.

- IBM 6314 Color Display (1024 x 768, 70Hz only)
- IBM 6319 Color Display (1024 x 768, 70Hz only)
- IBM 6317 Color Display (1280 x 1024, 60Hz and 1024 x 768, 75Hz)
- IBM 6324 Color Display (1024 x 768, 75Hz and 1280 x 1024, 60Hz)
- IBM 6325 Color Display (1024 x 768, 75Hz and 1280 x 1024, 60Hz)
- IBM 6327 Color Display (1024 x 768, 75Hz and 1280 x 1024, 60Hz)
- IBM 9524 Color Display (1024 x 768, 75Hz and 1280 x 1024, 60Hz)

The 9524 display features a CRT with a maximum viewable image size of 13.03 inches (331 mm) measured diagonally.

- IBM 9525 Color Display (1024 x 768, 75Hz and 1280 x 1024, 60Hz)

The 9525 display, featuring a Flatter Squarer Tube (FST) CRT, has a maximum viewable image size of 13.7 inches (348 mm) measured diagonally.

- IBM 9521 Color Display (1024 x 768, 75Hz and 1280&Rbl.x 1024, 60Hz)

The 9521 display, featuring a Diamondtron CRT, has a maximum viewable image size of 19.1 inches (485 mm) measured diagonally.

- IBM 9527 Color Display (1024 x 768, 75Hz and 1280 x 1024, 60Hz)

The 9527 display, featuring a Trinitron CRT, has a maximum viewable image size of 19.1 inches (391 mm) measured diagonally.

- IBM Monochrome Display 8508 (1280 x 1024, 67Hz only)

- IBM Personal System/2® 8517 Color Display (1024 x 768)

<sup>4</sup> RPQs for "separate sync": RPQ 8K1700 for 5081-16 and RPQ 8K1744 for 6091-23.

## **Vendor Displays**

- Mitsubishi HL-6915SBK 1280 x 1024 20-inch color
- NANA0 9070 1024 x 768 16-inch color
- NEC 4D Multisync 1024 x 768 16-inch color
- NEC 5D Multisync 1280 x 1024 20-inch color
- IDEK MF-5117 1024 x 768 17-inch color
- Sony GDM-1606/1953 1280 x 1024 16-inch, 19-inch color
- Sony GDM-1605/1954 1024 x 768 16-inch, 19-inch color
- Mitsubishi HL/FL6615 1280 x 1024, 1024 x 768 16-inch color
- NEC 5FG/6FG 1280 x 1024, 1024 x 768 21-inch color
- Goldstar VGA1465 1024 x 768 14-inch color
- Hyundai SVGA 1024 x 768 14-inch color

- NEC 3FGx 1024 x 768 15-inch color
- Panasonic C1395 1024 x 768 14-inch color

#### Dials

- IBM 6094-010
  - IBM 6094-010 requires 6094 feature number 4060 for attachment to a standard serial port. The 6094 feature number 4061 may also be required.

#### Lighted Programmable Function Keyboard

- IBM 6094-020
  - IBM 6094-020 requires 6094 feature number 4060 for attachment to a standard serial port. The 6094 feature number 4061 may also be required.

#### Tablets

- IBM 6093 Tablet Model 011 (requires 6093 cable #4015)
- IBM 6093 Tablet Model 012 (requires 6093 cable #4015)

#### Plotters

- IBM 6180 M1 Color
- IBM 6182 Color
- IBM 6185 Model 1 Color
- IBM 6185 Model 2 Color

#### 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, emulating the 2380 Personal Printer for PPDS (IBM ASCII)<sup>5</sup>
- IBM 2381 Plus Printer, emulating the 2381 Personal Printer for PPDS<sup>5</sup>
- IBM 2390 Plus Printer, emulating the 2390 Personal Printer for PPDS<sup>5</sup>
- IBM 2391 Plus Printer, emulating the 2391 Personal Printer for PPDS<sup>5</sup>
- IBM 3812-002 Page Printer<sup>6</sup>
- IBM 3816-01D and 01S Page Printer<sup>7</sup>
- IBM 3930-03D and 03S Page Printer, emulating the HP LaserJet III Si<sup>\*\*</sup>
- IBM 4019-001 LaserPrinter<sup>8</sup>
- IBM 4019-E01 LaserPrinter<sup>8</sup>
- IBM 4029-010 LaserPrinter 5E
- IBM 4029-020 LaserPrinter 6
- IBM 4029-022 LaserPrinter<sup>5</sup>
- IBM 4029-030 LaserPrinter 10
- IBM 4029-042 LaserPrinter
- IBM 4029-040 LaserPrinter 10L
- IBM 4037 5E Page Printer, emulating the 4029 LaserPrinter for PCL emulation and for PPDS (IBM ASCII)<sup>5</sup>
- IBM 4039-10R LaserPrinter 10R<sup>9</sup>
- IBM 4039-10D LaserPrinter 10D<sup>9</sup>
- IBM 4039-12L LaserPrinter 12L<sup>9</sup>
- IBM 4039-12R LaserPrinter 12R<sup>9</sup>
- IBM 4039-16L LaserPrinter 16L<sup>9</sup>
- IBM 4070 IJ Printer Model 1
- IBM 4072-001 ExecJet® Printer
- IBM 4076 ExecJet II Printer<sup>5 10</sup>
- 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 4232 -302 Dot Matrix Printer, emulating the IBM 4202
- IBM 4234-009 Line Dot Matrix Printer
- IBM 4234-13 Line Dot Matrix Printer
- IBM 5202-001 Quietwriter® III<sup>11</sup>
- IBM 5204-001 Quickwriter<sup>11</sup>
- IBM 6252 Impactwriter® AP2 (7012: #2936, #2937, or #3100 required)
- IBM 6252 AS2 (7012: #2936, #2937, or #3100 required)
- IBM 6252 AP8 Impactwriter<sup>12</sup>
- IBM 6252 AS8 Impactwriter<sup>12</sup>
- IBM 6262 A12, A14, A22
- IBM 6408 Line Matrix Printer, emulating the IBM 4234

The following non-IBM printers are also supported:

- Hewlett-Packard LaserJet Series II<sup>\*\*13</sup>
- Hewlett-Packard LaserJet Series III<sup>\*\*13</sup>
- Hewlett-Packard LaserJet Series III Si<sup>\*\*13</sup>
- Hewlett-Packard LaserJet 4<sup>13</sup>
- TI Omnilaser 2115<sup>\*\*</sup>
- DATAPRODUCTS LZR 2665<sup>\*\*</sup>
- PRINTRONIX P9012<sup>\*\*</sup>
- DATAPRODUCTS BP 2000<sup>\*\*</sup>
- QMS<sup>\*\*</sup> Colorscript 100 Model 20

<sup>5</sup> For assistance with these printers and for the latest AIX virtual printer files (colon files), call Lexmark Customer Support. Virtual printer files (colon files) for the 4037 and 4076 printers are available from Lexmark. Colon files for these printers are distributed via: Lexmark Customer support line: 606-232-3000; Dial-in BBS: 606-232-5238; VM request machine DRIVERS at LEXCJN1 (for IBM customers, IBM representatives); Lexmark Internet file server: ftp.lexmark.com; and reader response card for the 4037 and 4076.

<sup>6</sup> Feature number 3155 for the IBM 3812 printer is required for attachment to the RISC System/6000 system.

<sup>7</sup> Feature number 7652 for the IBM 3816 printer is required for attachment to the RISC System/6000 system.

<sup>8</sup> When using the serial ports, the IBM 4019 requires feature number 9143 (System serial interface adapter) for attachment to the RISC System/6000 system.

<sup>9</sup> AIX support software for the LaserPrinter Integrated Network Option is provided with the Network Option cards (Features 5495, 5496, and 5497 on the IBM 4039 LaserPrinter).

<sup>10</sup> Use the virtual printer files available from Lexmark for the PCL emulation mode of the 4076 printer. For PPDS (IBM ASCII), select emulation of the 2390 Personal Printer.

<sup>11</sup> The IBM RISC System/6000 system supports Code Page 850. The Code Page 850 cartridge must be installed on the IBM 5202 printer to fully utilize the full character sets of the system. For details on available cartridges, refer to the IBM 5202 Sales Manual. Other IBM printers have Code Page 850 resident.

<sup>12</sup> Impactwriter A models emulate the IBM 4202-3 printer for traditional line printing of simple text and numbers. Graphics, all points addressable, and large characters cannot be printed.

<sup>13</sup> AIX support software for the HP JetDirect Ethernet Card.

#### 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)

**ASCII Terminals:** The IBM 3151, 3161, 3162, 3163, and 3164 are supported in 3161 mode. Support for the IBM 3164 includes color attributes.



- IBM 3151 Model 310/410<sup>4</sup>
- IBM 3161<sup>4</sup>
- IBM 3162<sup>4</sup>
- IBM 3163<sup>4</sup>
- IBM 3164<sup>4</sup>
- DEC\*\* VT100
- DEC VT220
- DEC VT320
- DEC VT330
- WYSE\*\* 30
- WYSE 50
- WYSE 60
- WYSE 350

<sup>4</sup> National language support is provided through the use of Cartridge 8859/1.2 inserted in the terminal.

**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 protocols. Not all features supported by the listed modems are supported by the AIX Version 3 for RISC System/6000 software.

Modems	Protocols	Standards
IBM 5865 9600bps	Sync	EIA-232D, CCITT V.24
IBM 7861 up to 19.2Kbps	Async Sync	EIA-232D, CCITT V.24

### Security, Auditability, and Control

Security and auditability features of the RISC System/6000 Models 41T and 41W graphics workstations include:

- Physical security provided by a key lock that helps prevent both cover removal and unauthorized IPL of the operating system when locked
- Customer-orderable security cable accessory

This product also 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

**Volume Discount:** Volume purchasing is available under the Volume Discounts section of the IBM Customer Agreement.

**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.

**Customer Fulfillment Option Applies:** Yes

**Warranty Period:** One year

**Warranty Service:** IBM On-Site Repair (IOR)

**Maintenance Service:** 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 products are an eligible machine for the Mid-Range System Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

Eligible Type	Discount	
	Three-Year	Five-Year
RISC System/6000 7006	12%	17%

**Corporate Service Option:** The announced products are an eligible machine for the Corporate Service Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

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

**Extended Maintenance Option:** The announced products are eligible machines under the Extended Maintenance Option of the IBM Customer Agreement.

**IBM Software Support Services:** The IBM AIX/6000 Support Family offers a number of technical support services designed to meet the varying system support requirements of our AIX/6000 and RISC System/6000 customers. These services provide timely, knowledgeable assistance and information from IBM specialists and experts. The various options of the services provide flexibility in defining the scope of services received from IBM.

The AIX/6000 Support family includes:

- AIX/6000 SupportLine — provides you with telephone access to a team of IBM specialists.
- AIX/6000 Associate — an analyst is assigned to work remotely with you and becomes familiar with your specific systems and requirements.
- AIX/6000 ConsultLine — allows you to schedule time with the experts to address highly technical topics such as system design, performance evaluation, and in-depth communications.
- AIX/6000 Performance Management — provides automated performance data collection software that continually monitors your system and transmits results back to the performance experts for evaluation.
- AIX Technical Library/6000 — provides you with a library of service and support information on a CD-ROM that is updated and distributed quarterly.
- AIX/6000 House Call — provides you with on-site assistance with such tasks as installation, problem assistance, software maintenance, and updates.

The AIX/6000 Support family also includes packages of services designed to meet the needs of specific customer types:

- AIX/6000 New Customer Support Package
- AIX/6000 Growing Customer Support Package
- AIX/6000 Established Customer Support Package

For complete details on the AIX/6000 Support Family, refer to IBM Services Announcement 693-004, dated March 16, 1993.

**Product Availability Status:** New product available

**Field-Installable Features:** Yes

**Model Conversions:** No

**Customer Setup:** Yes

**Graduated Charges:** The announced products are in Processor Group D5 for software with graduated charges.

**Licensed Internal Code:** Yes

**Educational Allowance:** A 20% education allowance is available to qualifying institutions in accordance with the Attachment for Educational Allowance. The educational allowance may not be added to any other discount or allowance.

## Charges

### Product Charges

Description	Machine Model	Price	Monthly MMC*
IBM RISC System/6000 Model 41T	7006 41T	\$11,200	\$112
IBM RISC System/6000 Model 41W	7006 41W	9,995	100

\* Minimum Maintenance Charge.

The following specify and select features can only be ordered with the initial plant order and are available on Machine Type 7006 Model 41T.

Description	Feature Number	Price	Monthly MMC
POWERdisplay 17 Specify	9612	\$0	\$0

The following specify and select features can only be ordered with the initial plant order and are available on Machine Type 7006 Model 41T and 41W.

Description	Feature Number	Price	Monthly MMC
POWER GXT150L Specify	9651	\$ 0	\$ 0
7235 POWER GTO Accelerator Select	2661	0	0
POWER Gt4e (8 bit) Select	2662	1,200	4
POWER Gt4xi (8 bit) (Select)	2666	4,300	65
POWER Gt4xi (24 bit) (Select)	2667	7,300	105
POWER Gt4i (24 bit) (Select)	2668	5,300	85
4MB SIMM Memory Specify	9230	0	0
8MB SIMM Memory Select (4MB to 8MB)	4024	400	0
16MB SIMM Memory Select (4MB to 16MB)	4025	1,145	0
32MB SIMM Memory Select (4MB to 32MB)	4026	2,605	0

**Note:** Memory SIMMs must be ordered and installed in groups of four identical SIMM Memory Cards (four feature numbers).

Description	Feature Number	Price	Monthly MMC
540MB SCSI-2 Disk Drive Specify	9254	\$ 0	\$0
1GB SCSI-2 Disk Drive Select (540MB to 1GB)	2549	600	0
2GB SCSI-2 Disk Drive Select (540MB to 2GB)	2548	2,300	0
3-Button Mouse Specify	9041	0	0
Software Preload	5005	0	0

The following keyboard is available on Machine Type 7006 Models 41T and 41W and can only be ordered with the initial plant order.

Description	Feature Number	Price	Monthly MMC
Keyboard — 101 Keys U.S. English	9010	\$0	\$0

The following language group is available on Machine Type 7006, Models 41T and 41W and can only be ordered with the initial plant order.

Description	Feature Number	Price	Monthly MMC
Language Group — U.S. English	9300	\$0	\$0

The following power cord is available on Machine Type 7006 Model 41T and 41W and can only be ordered with the initial plant order.

Description	Feature Number	Price	MMC
Power Cord, U.S./Canada	9800	\$0	\$0

The following features are available on Machine Type 7006 Models 41T and 41W for plant or field installation.

Description	Feature Number	Price	Monthly MMC
2MB SIMM Memory	4001	\$ 150	\$0
4MB SIMM Memory	4002	295	0
8MB SIMM Memory	4003	695	0
16MB SIMM Memory	4011	1,440	0
32MB SIMM Memory	4012	2,900	0
0.5MB L2 Cache	4043	1,500	0
SCSI-2 High-Performance I/O Controller	2410	1,195	0
SCSI-2 Differential High-Performance External I/O Controller	2420	1,495	0
SCSI-2 Differential Y-Cable	2422	244	0
SCSI-2 Differential System to System Cable	2423	108	0
Integrated SCSI Controller Cable	2833	195	0
SCSI Single-Ended Controller Cable	2834	250	0
SCSI-2 Controller Cable	2836	195	0

Description	Feature Number	Price	Monthly MMC	Description	Feature Number	Price	Monthly MMC
16-bit Internal 3-Drop SCSI-2 Fast/Wide Adapter/A Cable	2434	\$ 350	\$ 0	4-Port Multiprotocol Multiprotocol Interface Cable	2995	\$ 384	\$ 0
SCSI Device-to-Device Cable	3130	78	0	1-Port Multiprotocol Communications Adapter	2959	450	0
POWERdisplay 17	3607	1,795	16	Controller	2700	2,600	29
POWERdisplay 20	3608	2,995	25	X.25 Interface Co-Processor/2	2960	1,570	0
POWER GXT150L Graphics Adapter	2660	1,695	25	X.25 Attachment Cable —X.21	2965	104	0
POWER Gt3™	2768	1,895	19	—3-meter	2965	104	0
POWER Gt4e (8 bit)	2776	2,895	29	X.25 Attachment Cable —V.24	2966	104	0
POWER Gt4xi (8 bit)	2711	5,995	90	—3-meter	2966	104	0
POWER Gt4xi (24 bit)	2712	8,995	130	X.25 Attachment Cable —V.35	2967	192	0
POWER Gt4i (24 bit)	2713	6,995	110	—3-meter	2967	192	0
7235 POWER GTO Accelerator	4350	995	30	Token-Ring High-Performance Network Adapter	2970	1,030	0
Sun**-Compatible Display Converter Cable	4227	100	0	3270 Connection Adapter	2990	618	0
13W3 Connector to 15-Pin D-Shell Converter Cable	4213	100	0	Ethernet High-Performance LAN Adapter	2980	722	0
13W3 Connector to 6091 Display Cable	4214	105	0	PC Parallel Printer Cable	3100	48	0
13W3 Connector to POWERdisplay 16S Cable	4229	165	0	Service Publications and Wrap Plugs	3750	57	0
Graphics Input Device Adapter	2810	416	0	Diagnostic Media	3751	57	0
Cable for Tablet	2811	67	0	Token-Ring Cable (Same as Cable included with #2970)	4218	36	0
Multiprotocol Attachment Cable —V.35	2702	117	0	Ethernet 10Base2 Transceiver	4223	195	0
Multiprotocol Attachment Cable —X.21	2704	117	0	Ethernet 10BaseT Transceiver	4224	195	0
4-Port Multiprotocol Interface Cable	2705	500	0	Serial Port Converter Cable	3107	50	0
Multiprotocol Attachment Cable —EIA-232/V.24	2706	93	0	M-Video Capture Adapter (NTSC)	2400	2,250	42
FDDI —Fiber Dual-Ring Upgrade	2723	1,995	0	M-Video Capture Adapter (PAL®)	2401	3,395	45
FDDI —Fiber Single-Ring Adapter	2724	3,995	34	M-Audio Capture and Playback Adapter	6301	495	0
FDDI —STP Single-Ring Adapter	2725	3,495	30	Digital Trunk Adapter	6300	1,200	10
FDDI —STP Dual-Ring Upgrade	2726	1,495	0	Digital Trunk Dual Adapter	6305	2,400	10
540MB SCSI-2 Disk Drive	2390	1,200	35	3-Button Mouse	6041	135	0
1 GB SCSI-2 Disk Drive	2555	1,800	35	Realtime Interface Co-Processor Multiprotocol/2 Adapter (0.5MB)	7002	1,055	0
2 GB SCSI-2 Disk Drive	2580	3,500	25	Realtime Interface Co-Processor Multiprotocol/2 Adapter (1MB)	7004	1,435	0
3.5-Inch 2.88MB Diskette Drive	2610	325	0	Realtime Interface Co-Processor Portmaster® Adapter/A (1MB)	7006	1,750	0
Internal CD-ROM-2	2603	695	15	Realtime Interface Co-Processor Portmaster Adapter/A (2MB)	7008	2,265	0
1.2GB Internal ¼-inch Cartridge Tape Drive	2630	1,995	16	Realtime Interface Co-Processor Multiprotocol/2 4-Port RS-232			
4GB 4 mm Internal Tape Drive	6142	2,695	35				
5GB 8 mm Internal Tape Drive	6147	5,395	50				
Terminal Cable —EIA-422A	2945	130	0				
8-Port Async Adapter —EIA-232	2930	832	0				
Async Cable EIA-232/V.24	2936	73	0				
Printer/Terminal Interposer EIA-232	2937	29	0				

<b>Description</b>	<b>Feature Number</b>	<b>Price</b>	<b>Monthly MMC</b>	The following features have been previously announced and are available on Machine Type 7006, Model 41T and 41W.	
Interface Board Realtime Interface Co-Processor Multiport/2 6-Port RS-232-C	7022	\$ 362	\$ 0		
Synchronous Interface Board Realtime Interface Co-Processor Multiport/2 8-Port RS-232	7024	438	0	Keyboard U.S. English — Soft Touch	1110
Interface Board Realtime Interface Co-Processor Multiport/2 8-Port RS-422-A	7026	442	0	Keyboard U.S. English — Soft Touch Select (9010)	1010
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7028	541	0	IBM SCSI-2 Fast/Wide Adapter/A IBM SCSI-2 Differential Fast/Wide Adapter/A	2415 2416
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7030	470	0	0.6m 16-bit SCSI-2 Differential System to System Cable	2424
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7042	627	0	2.5m 16-bit SCSI-2 Differential System to System Cable	2425
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7044	673	0	16-bit Y-Cable for IBM SCSI-2 Differential Fast/Wide Adapter/A 8-bit Y-Cable for IBM SCSI-2 Differential Fast/Wide Adapter/A	2426 2427
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7046	1,227	0	16-Bit IBM SCSI-2 Fast/Wide Adapter/A to Dual-Ported Device Cable	2435
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7048	1,000	0	16-Bit IBM SCSI-2 Differential Fast/Wide Adapter/A to Dual-Ported Device Cable	2436
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7102	226	0	8-Bit IBM SCSI-2 Fast/Wide Adapter/A to Dual-Ported Device Cable	2437
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7104	257	0	8-Bit IBM SCSI-2 Differential Fast/Wide Adapter/A to Dual-Ported Device Cable	2438
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7106	848	0	8-Bit IBM SCSI-2 Fast/Wide Adapter/A to Single-Ported Device Cable	2439
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7108	375	0	2GB SCSI-2 Fast/Wide Disk Drive	2586
Interface Board Realtime Interface Co-Processor Multiport/2 RS-232/RS-422	7110	700	0	2GB SCSI-2 Fast/Wide Disk Drive (Select)	2588
				7250 Attachment Adapter	2820
				7250 Attachment Adapter	2663
				POWER GXT150M™ (for Micro Channel Bus)	2650
				5080 Coax Communication Adapter	2840

The following keyboard is available on Machine Type 7006, Models 41T and 41W:

<b>Description</b>	<b>Feature</b>	<b>Price</b>	<b>Monthly MMC</b>
Keyboard — 101 Keys U.S. English	6010	\$265	\$0