5

iSeries SB2 and SB3 models

This chapter identifies the features associated with each SB2 and SB3 system, such as the processor features, power and packaging, main storage, workstation controllers, and communications—including LANs and ATM, disk units, internal tape units, CD-ROM, and magnetic media controllers.

Model	Announce/availability date	Withdrawn from marketing
SB2 #2315	Announced 12 June 2000 Available August 2000	03 December 2002
SB3 #2316 and #2318	Announced 12 June 2000 Available August 2000	03 December 2002

5.1 iSeries SB2 and SB3 model overview

Note: The darker shaded cells in the tables indicate the base features.

Model	SB2	SB3	
Processor feature	**#2315**	**#2316**	**#2318**
Relative system performance[1]			
Processor CPW	7350	10000	16500
Interactive CPW	n/a	n/a	n/a
Number/type/speed of processor	8/IStar/540 MHz	12/IStar/500 MHz	24/IStar/500 MHz
L2 Cache (MB)	8	8	8
Main storage (GB)	12	16	24
Main storage DIMMs (min/max)	48/48	8/8	12/12
Minimum operating system level	V4R5	V4R5	V4R5
Processor group	P30	P40	P40
DASD storage			
DASD arms maximum	4	6	8
Physical minimum (GB)	34.3	34.3	34.3
Physical maximum (GB)	70.1	105.2	140.3
Logical maximum (RAID-5 protection)	52.6	87.7	122.7

	SB2 Base #9074	SB3 Base #9079	Migration Tower II #5077	SB2 total	SB3 total
Diskette (8 or 5 ¼-inch)	-	-	-	-	-
Communication lines[3]	32	32	6	32	32
Twinax workstation controllers	1	1	1	1	1
Twinaxial devices	28	28	28	28	28
Internal CD-ROM/DVD-RAM[4, 6]	1	1	1	2	2
Internal tape	1	1	2	2	2
External tape	5	7	2	5	7
Tape libraries maximum[2]	4	4	2	4	4
Optical libraries	2	2	1	2	2
Physical packaging					
External HSL ports[5]	4	8	-	4	8
External HSL loops[5]	2	4	-	2	4
#5077 Migration Tower II	1	1	-	1	1
External xSeries Servers	-	-	-	-	-
Maximum SPD cards/PCI IOPs	3	3	2[7]	3	3
PCI adapter card slots (usable)	14	14	-	14	14
Maximum PCI IOA cards (usable)	11	11		11	11
LAN ports	4	4	3	4	4
Integrated xSeries Server	2	2	1	2	2
Cryptographic processor	3	3	1	3	3

Note 1	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application running determine what performance is achievable. With the introduction of the Dedicated Servers for Domino, Simple Mail Users is added as a performance measurement.
Note 2	The total number of tape drives does not increase.
Note 3	One line is used if the #5544 System Console on Operations Console is used. One line might be used if the #5546 or #5548 System Console on LAN are selected and the #0367 Operations Console PCI Cable must be connected.
Note 4	There must be one CD-ROM or DVD-RAM per system.
Note 5	Because only three controllers and two towers are allowed on the SB3, a maximum of four HSL ports and two HSL loops are usable to attach towers. Other ports and loops are usable for clustering only.
Note 6	Includes a base CD-ROM in the migration tower (no feature code).
Note 7	The Base MFIOP (CCIN 671A) is included in this total.

5.2 iSeries Model SB2 and SB3 features

The SB2 System Tower is packaged in a Model 830. The SB3 System Tower is packaged in a Model 840. For the system diagrams, see 3.6, “9406 Model 830 system unit” on page 66, and 3.7, “9406 Model 840 system unit” on page 68.

PCI cards are subject to plugging rules. See Chapter 6, “PCI card placement rules for the iSeries server” on page 163, for details.

Note: The darker shaded cells in the tables indicate the base features.

SB2 AND SB3 PROCESSORS	
#2315	**SB2 7350 CPW 8-way Processor in Client/Server Environment.** Base features include: ► Main Storage Expansion Card (2X) (CCIN 2881) ► 48 main storage DIMMs (CCIN 300F) ► #9733 Bus Expansion/Clock Card—Eight HSL Ports (CCIN 25AD) ► PCI and Common Service Processor Card (CCIN 28AA) ► Bus Adapter (CCIN 2681) ► Processor Capacity Card (CCIN 2315) ► Processor 0 (CCIN 245D) ► Processor 1 (CCIN 245D)
#2316	**SB3 10000 CPW 12-way Processor in Client/Server Environment.** Base features include: ► Terminator/Filler Card (CCIN 246C) (2X) ► 8X 2048 MB main storage cards (CCIN 319A) installed (16384 MB total) ► PCI and Common Service Processor Card (CCIN 28AA) ► Bus Adapter (CCIN 2681) ► Processor Regulators (CCIN 2714) (2X) ► SPCN Card (CCIN 285B) (1X) ► Processor Capacity Card (CCIN 2316) ► Processor 0 (CCIN 245F) ► Processor 1 (CCIN 245E)
#2318	**SB3 16500 CPW 24-way Processor in Client/Server Environment.** Base features include: ► 12X 2048 MB main storage cards (CCIN 319A1) installed (24576 MB total) ► PCI and Common Service Processor Card (CCIN 28AA) ► Bus Adapter (CCIN 2681) ► Processor Regulators (CCIN 2714) (2X) ► SPCN Card (CCIN 285B) (1X) ► Processor Capacity Card (CCIN 2318) ► Processor 0 (CCIN 245F) ► Processor 1 (CCIN 245E) ► Processor 2 (CCIN 245E) ► Processor 3 (CCIN 245E)

POWER AND PACKAGING	
#0141	**#0141 HSL OptiConnect Specify** The #0141 is used to specify that this system is to be part of a cluster using HSL OptiConnect. This feature is used to allow the ordering of additional HSL cables to connect the systems that have OptiConnect. Prerequisite: HSL OptiConnect capable system (#2754/#9752 on the SB2 and #2755/#9755 on the SB3) Maximum - One Minimum OS/400 level: V5R1
#0382	**#0382 Remote Control Panel Cable** To connect the remote control panel cable to iSeries servers 270, 820, 830, or 840, or 890, an available parallel port (LPT) is needed on the PC instead of a COM port. The parallel port must be configured to use Enhanced Parallel Port 1.9 (EPP) support, which may require a change in the PCs Basic Input/Output Services (BIOS). Check with your PC manufacturer for any assistance. Remote Control Panel is installed and used from PCs running the Windows NT 4.0 or Windows 2000 Professional PC operating system. **Note:** Some PCs may not support this function due to BIOS or hardware incompatibilities. The #0382 is a Customer Install Feature (CIF).
#2754	**#2754 HSL Ports - 8 Copper** The #2754 has eight copper HSL ports and a 540 MHz oscillator, and supports clustering (HSL OptiConnect). The #2754 is used in the 4-way and 8-way SB2 models. Minimum OS/400 level: V5R1
#2755	**#2755 HSL Ports - 16 Copper** The #2755 has 16 copper HSL ports, a 540 MHz oscillator and supports clustering (HSL OptiConnect). The #2755 is used in the SB3 models. Minimum OS/400 level: V5R1

#5077	**#5077 Migration Tower II** The #5077 is a feature I/O tower that supports two SPD I/O cards. The #5077 may be ordered to support clustering on the Models SB2 and SB3. In this case the #5077 is shipped as a new tower and is supplied with a base optical link card (CCIN 2696) and base CD-ROM. One or two feature #2695 Optical Bus Adapter may be ordered for the #5077. Up to two SPD cards may be ordered. The #5077 supports up to thee internal tape/CD devices. See the 640, 650, S30, S40, 730, and 740 sections for supported cards and devices. Select one of these HSL cables if the #5077 has just the base optical link card installed. Select two (any combination) of these HSL cables if the #5077 has one or two #2695 Optical Bus Adapters installed: #1460 - 3m Copper HSL Cable #1461 - 6m Copper HSL Cable #1462 - 15m Copper HSL Cable Select one of these SPCN cables per tower: #1463 - 2m SPCN Cable #1464 - 6m SPCN Cable #1465 - 15m SPCN Cable #1466 - 30m SPCN Cable One JTAG-C cable (6m) is included with the #5077. One #14xx power cord must be specified (geography dependent). Restrictions: Disks may not be installed in the #5077 when attached to SB2 or SB3. Maximum: One
#5150	**#5150 Battery Backup (external)** The #5150 is an external battery backup that, when used in conjunction with the internal battery backup, is capable of extending the battery backup time. Model SB3 only.
#9074	**#9074 Base I/O Tower** The #9074 is the “base” I/O tower shipped on Models SB2. The #9074 supports up to four disk units, when installed in the SB2, up to two removable media units, one battery backup, and redundant/hot swap power supplies. The #9074 has a #9943 Base PCI IOP and a #9748 Base PCI RAID Disk Unit Controller. The 11 PCI IOAs are supported (driven) by the base #9943 Base PCI IOP and by #2843 PCI IOPs. The #2790 PCI Integrated Netfinity Servers and #2791/#2799 PCI Integrated xSeries Server can also support selected LAN cards. Select two (any combination) of these HSL cables: #1460 - 3m Copper HSL Cable #1461 - 6m Copper HSL Cable #1462 - 15m Copper HSL Cable Select one of these SPCN cables per tower: #1463 - 2m SPCN Cable #1464 - 6m SPCN Cable #1465 - 15m SPCN Cable #1466 - 30m SPCN Cable One JTAG-C cable (6m) is included with the #5077. One #14xx power cord must be specified (geography dependant). The #9074 is capable of controlling Ultra2 SCSI disk units. The two removable media devices (internal tape or CD-ROM) are supported by the #9748.
#9079	**#9079 Base I/O Tower** The #9079 is the “base” I/O tower shipped on SB3 models. The #9079 supports up to six disk units when installed in the #2316 SB3 processor and eight on the #2318 SB3 processor, up to two removable media units, one battery backup, and redundant/hot swap power supplies. The #9079 has a #9943 Base PCI IOP and a #9748 Base PCI RAID Disk Unit Controller. The 11 PCI IOAs are supported (driven) by the #9943 Base PCI IOP and by #2843 PCI IOPs. The #2790 PCI Integrated Netfinity Servers and or #2791/#2799 PCI Integrated xSeries Server can also support selected LAN cards. Select two (any combination) of these HSL cables: #1460 - 3m Copper HSL Cable #1461 - 6m Copper HSL Cable #1462 - 15m Copper HSL Cable Select one of these SPCN cables per tower: #1463 - 2m SPCN Cable #1464 - 6m SPCN Cable #1465 - 15m SPCN Cable #1466 - 30m SPCN Cable One #14xx power cord must be specified (geography dependent). The #9079 is capable of controlling Ultra2 SCSI disk units. The two removable media devices (internal tape or CD-ROM) are supported by the #9748.
#9733	**#9733 Base HSL Ports - 8 Copper** The #9733 is a base bus expansion card, which installs in the SB2 system unit. The #9733 has eight HSL ports.
#9737	**#9737 Base HSL Ports - 16 Copper** The #9737 is a base bus expansion card, which installs in the SB3 system unit. The #9737 has 16 HSL ports.

#9752	**#9752 Base HSL Ports - 8 Copper** The #9752 is a base bus expansion card that installs in the system unit of the Model SB2. The #9752 has eight copper ports and an 540 MHz oscillator, and supports clustering (HSL OptiConnect). Minimum OS/400 level: V5R1
#9755	**#9755 Base HSL Ports - 16 Copper** The #9755 is a base bus expansion card that installs in the system unit of the Model SB3. The #9755 has 16 copper ports and supports clustering (HSL OptiConnect). Minimum OS/400 level: V5R1
	MAIN STORAGE
	There are no memory features on Models SB2 and SB3.
	PCI IOP CONTROLLERS
#9943 Base IOP	**#9943 Base PCI IOP** The #9943 (CCIN 2843) is included as the base IOP for Models SB2 and SB3. See the #2843 for details and cards supported.
#2790 #2791 #2799	**#2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server** The #2790 PCI Integrated Netfinity Server contains a 700 MHz processor, the #2791 contains a 850 MHz processor, and the #2799 contains a 1 GHz Pentium III processor. Each processor contains four main storage slots. The #2790/#2791/#2799 is supported in the system tower of Model SB2 or SB3. Each main storage slot of the #2790/#2791/#2799 can contain either a 128 MB main storage card, a 256 MB main storage card, or a 1024 MB main storage card providing a total main storage capacity ranging from 128 MB to 4096 MB (4 GB). At least one main storage card is required. When the maximum memory is installed, only 3712 MB is addressable. These main storage cards provide memory for the #2790/#2791/#2799 when installed in an 8xx system or attachable HSL towers: #2795 - 128 MB IOP Memory #2796 - 256 MB IOP Memory #2797 - 1 GB IOP Memory The #2790/#2791/#2799 can support PCI 100/16/4 Mbps Token Ring IOAs, PCI 100/10 Mbps Ethernet IOAs, or PCI 1 Gbps Ethernet IOAs in any combination. At least one LAN IOA is required. The features for the LAN IOAs are as follows: #4838 PCI 100/10 Mbps Ethernet IOA #2744 PCI 100 Mbps Token Ring IOA #2743 1 Gbps PCI Ethernet IOA #2760 PCI 1 Gbps Ethernet UTP Adapter When a #2790/#2791/#2799 is on the order, if the #4838 is selected, specify code #0224 is required for each #4838 selected to run on the #2790/#2791/#2799. If the #2744 is selected, specify code #0223 is required for each #2744 selected to run on the #2790/#2791/#2799. If the #2743/#2760 is selected, specify code #0225 is required for each #2743/#2760 selected to run on the #2790/#2791/#2799. Up to three IOA LAN features can be supported by the #2790/#2791/#2799, depending on which system or expansion tower position the #2790/#2791/#2799 is placed. The #2790/#2791/#2799 requires three PCI slots. One slot is consumed. The second slot is unusable, and the third slot is reduced to a short LAN card (used by the first attached LAN IOA card). The #2790/#2791/#2799 does not require a #2843 or #9943, but placement is limited to specific slots within the various system towers and expansion towers. The #2790/#2791/#2799 supports only the Windows NT and Windows 2000 operating systems. These rules apply: #0325 (IPCS Extension Cable for Windows) is the default (but may be removed). #1700 (IPCS Keyboard/Mouse for Windows) is the default (in those countries offering it). A display must be connected to the #2790 PCI Integrated Netfinity Server to support Windows. For non-U.S. keyboard/mouse and display, see: http://www.ibm.com/eserver/iseries/windowsintegration/ Restrictions: Native OS/400 functions are not supported. The #2790/#2791/#2799 does not support external host LAN. Minimum OS/400 level: #2790/#2791 - V4R5 with Cumulative Package C1005450. #2799 - V5R1 plus PTFs listed in Information APAR II13105. Minimum OS/400 to support #2743 or #2760 on #2790/#2791/#2799: V5R1 The #2790/#2791/#2799 is a Customer Install Feature (CIF).

#2843 #9943	**#2843 PCI IOP** The #2843 is a PCI I/O processor with 64 MB of memory that drives PCI IOA adapters on Models SB2 and SB3. The #2843 can drive up to four IOAs. These IOAs are supported (driven) by the #2843/#9943 PCI IOP: #2742 Two-Line WAN IOA #2743 1 Gbps PCI Ethernet IOA #2744 PCI 100 Mbps Token Ring IOA #2749 PCI Ultra Magnetic Media Controller #2760 PCI 1 Gbps Ethernet UTP Adapter #2765 PCI Fibre Channel Tape Controller #2768 PCI Magnetic Media Controller #2772 PCI Dual WAN/Modem IOA #2773 PCI Dual WAN/Modem IOA (ANSI) #2793 Two-Line WAN IOA with Modem #2794 Two-Line WAN IOA with Modem #2805 PCI Quad Modem IOA #2806 PCI Quad Modem (CIM) (ANSI) #2817 PCI 155 Mbps MMF ATM IOA #2849 10/100 Mbps Ethernet Adapter #4723 PCI 10 Mbps Ethernet Adapter #4745 PCI 2-line WAN IOA #4746 PCI Twinaxial IOA #4750 PCI ISDN BRI U IOA #4751 PCI ISDN BRI S/T IOA #4761 PCI Integrated Analog Modem #4801 PCI Cryptographic Coprocessor #4805 Cryptographic Accelerator #4815 PCI ATM 155 Mbps UTP OC3 #4816 PCI ATM 155 Mbps MMF #4818 PCI ATM 155 Mbps SMF OC3 #4838 PCI 100/10 Mbps Ethernet IOA #9771 Base PCI Two-Line WAN with integrated modem #9778 Base PCI RAID Disk Unit Controller #9793 Two-Line WAN IOA with Modem #9794 Two-Line IOA with Modem Maximum: Two in #9074 or #9079. **Note**: The #9943 Base PCI IOP is not counted in these maximums. The #2843 is a Customer Install Feature (CIF).
WORKSTATION CONTROLLERS	
#4746	**#4746 PCI Twinaxial IOA** The #4746 PCI Twinaxial IOA provides support for up to 40 twinaxial displays and printers. A 20-ft. (6.2 m) cable with an eight-port expansion (breakout) box is included with this adapter. Each port supports seven attached devices, allowing for 56 total attached devices, of which only 40 can be active. Maximum: One. The #4746 is a Customer Install Feature (CIF).
#5540	**#5540 System Console on Twinaxial Workstation IOA** A system console specify code must be selected on each new order. When #5540 is on the order, the system console is device attached to a #4746 PCI Twinaxial IOA.
#5544	**#5544 System Console on Operations Console** A system console specify code must be selected on each new order. When #5544 is on the order, the system console is connected to a #0367 Operations Console PCI Cable attached to a #4745 PCI 2-line WAN IOA or a #9771 Base PCI Two-Line WAN with integrated modem.
#5546	**#5546 System Console on 100 Mbps Token Ring** A system console specify code must be selected on each order. When the #5546 is on the order, the system console is LAN attached to a #2744 PCI 100 Mbps Token Ring IOA. The #2744 must be dedicated to the LAN console and cannot be used for any other purpose. Co-requisite: One #0367 Operations Console PCI Cable on the order or present on the system. Only one #0367 is required, regardless of the number of LAN consoles (via LPAR) defined to the system. Minimum OS/400 level: V5R1

#5548	**#5548 System Console on 100 Mbps Ethernet** A system console specify code must be selected on each order. When the #5548 is on the order, the system console is LAN attached to a #4838 PCI 100/10 Mbps Ethernet IOA. The #4838 must be dedicated to the LAN console and cannot be used for any other purpose. Co-requisite: One #0367 Operations Console PCI Cable on the order or present on the system. Only one #0367 is required, regardless of the number of LAN consoles (via LPAR) defined to the system. Minimum OS/400 level: V5R1
	LAN/WAN ADAPTERS
#2742	**#2742 Two-Line WAN IOA** The #2742 is a WAN IOA that supports up to two multiple protocol communications (RVX) ports when one or two (in any combination) of the following cables are attached. Select one of the following cables to attach to port 1 or 2 (RVX port): #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0353 V.35 20-ft. PCI cable #0354 V.35 50-ft. PCI cable #0355 V.35 80-ft./24m PCI cable #0356 V.36 20-ft. PCI cable #0358 V.36 150-ft./45m PCI cable #0359 X.21 20-ft. PCI cable #0360 X.21 50-ft. PCI cable #0365 V.24/EIA232 80-ft. PCI cable #0367 Operations Console PCI Cable **Note**: The #0367 cable ships with a 25 pin to 9 pin adapter. Multiple #0367 cables may be ordered (but only one per #2742) to serve as consoles for secondary partitions when logical partitioning (#0140) is specified. When #2742 is selected to support ECS, one of following cables must be specified: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0367 Operations Console PCI Cable The #2742 does not support Remote Power On. Minimum OS/400 level: V5R2 The #2743 is a Customer Install Feature (CIF).
#2743	**#2743 1 Gbps PCI Ethernet IOA** The #2743 PCI 1 Gbps Ethernet IOA feature allows the iSeries server to attach to IEEE standard 802.3Z high speed Ethernet LANs (1 Gbps). It can also be used to connect to existing 100 Mbps Ethernet LANs using switches with 10/100/1000 Mbps ports. The adapter supports multi-mode fiber media attachment to customer supplied cabling. If #2743 is selected as a LAN adapter for the #2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server specify code #0225 is required for each #2743 selected to run on the #2790/#2791/#2799. The #2743 may be directly attached to a Linux partition. When ordered as #0601 Linux Direct Attach - #2743, an IOP is not required. When direct attached to a Linux partition, the #2743 cannot be accessed by OS/400 partitions. Restrictions: The #2743 requires a gigabit-capable switch with at least one port that supports a 1000Base-SX interface with IEEE 802.3z and 802.3u compliance. It supports only a multi-mode fiber optic cable connection from the adapter to the switch. The #2743 supports 1000 Mbps (1Gbps) full duplex interface only and cannot negotiate down to a lower speed. Stations on the 10 Mb and 1000 Mb switched LANs can communicate with the #2743 through a switch that is capable of handling all these speeds. In this case, the switch handles the speeds. Protocols supported: TCP/IP only. SNA and IPX connections are not supported. Prerequisite: 64-bit card slot except on the Model 270 where it is supported in a 32-bit slot. Maximum: One per Multi-Adapter Bridge boundary except when installed with and controlled by a #2790/#2791/#2799. Minimum OS/400 for the #2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server to support the #2743: V5R1 The #2743 is a Customer Install Feature (CIF).

#2744	**#2744 PCI 100 Mbps Token Ring IOA** The #2744 PCI 100 Mbps Token Ring IOAprovides a single attachment to a 100 Mbps, 16 Mbps, or 4 Mbps IBM Token Ring Network. The feature consists of an IOA card, internal code, which supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions. The 100/16/4 Token Ring IOA is capable of operating in half or full duplex mode. A 2.44 meter (8 ft.) token ring cable is included with the #2744. As an alternative, the customer can attach a separately priced twisted pair cable to the RJ45 connection on the IOA. IBM Cabling System patch cables, included with the #2744, can increase the length as required. If the #2744 is selected to run on the #2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server, specify code #0223 is required for each #2744 selected to run on the #2790/#2791/#2799. The #2744 is a Customer Install Feature (CIF).
#2760	**#2760 PCI 1 Gbps Ethernet UTP Adapter** The #2760 PCI 1 Gbps Ethernet UTP Adapter feature allows the iSeries server to attach to IEEE standard 802.3Z high-speed Ethernet LANs (1 Gbps) using a UTP CAT 5 media interface. The #2760 can directly attach to 10 Mbps or 100 Mbps networks. The #2743 is supported as a LAN adapter for the #2790/#2791/#2799. If #2760 is selected to run on the #2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server specify code #0225 is required for each #2760 selected to run on the #2790/#2791/#2799. Supports TCP/IP only. SNA and IPX connections are not supported. The #2760 may be directly attached to a Linux partition. When ordered as #0602 Linux Direct Attach - #2760, an IOP is not required. When direct attached to a Linux partition, the #2760 cannot be accessed by OS/400 partitions. Prerequisite: A 64-bit card slot except on the Model 270 where it is supported in a 32-bit slot. Maximum: One per Multi-Adapter Bridge boundary except when installed with and controlled by a #2790/#2791/#2799. Minimum OS/400 level: V5R1 The #2760 is a Customer Install Feature (CIF).
#2772	**#2772 PCI Dual WAN/Modem IOA** The #2772 is a two-line WAN adapter with two ports (RJ11) with internal modems. Connection to the ports is via telephone cable. This is the non-Complex Impedence Matching (CIM) version of the IOA. Supported protocols are: V. 90 56K Async PPP Fax applications at data rates up to 14.4K Co-requisite: Country-specific telephone cables must be ordered. A minimum of one modem cable and a maximum of two must be selected for each #2772. All modem cables on a system must be the same feature number. The supported modem cables are: #1010 Modem Cable- Austria #1011 Modem Cable- Belgium #1012 Modem Cable- Africa #1013 Modem Cable- Israel #1014 Modem Cable- Italy #1015 Modem Cable- France #1016 Modem Cable- Germany #1017 Modem Cable- United Kingdom #1018 Modem Cable- Iceland/ Sweden #1021 Modem Cable- Fin/ Nor #1022 Modem Cable- Netherlands #1023 Modem Cable- Swiss #1024 Modem Cable- Denmark #1025 Modem Cable- U.S./Canada **Note**: The feature is country-specific. Contact your IBM representative or Business Partner for details on availability. Restrictions: Remote ring indicate is not supported. PCI card slots required: One. Minimum OS/400 level: V5R1 The #2772 is a Customer Install Feature (CIF)

#2773	**#2773 PCI Dual WAN/Modem IOA** The #2773 is a two-line WAN adapter with two ports (RJ11) with internal modems. Connection to the ports is via telephone cable. This is the Complex Impedence Matching (CIM) version of the IOA. Supported protocols are: V. 90 56K Async PPP Fax applications at data rates up to 14.4K Co-requisite: Country-specific telephone cables must be ordered. A minimum of one modem cable and a maximum of two must be selected for each #2773. All modem cables on a system must be the same feature number. The supported modem cables are: #1019 Modem Cable- Australia #1020 Modem Cable-China (Hong Kong S.A.R.)/New Zealand **Note**: The feature is country-specific. Contact your IBM representative or Business Partner for details on availability. Restrictions: Remote ring indicate is not supported. PCI card slots required: One. Minimum OS/400 level: V5R1 The #2773 is a Customer Install Feature (CIF).
#2793 #9793	**#2793 Two-Line WAN IOA with Modem** The #2793/#9793 is a 2-line WAN w/Modem adapter and is the non-Complex Impedence Matching (CIM) version that is offered in all countries except Australia and New Zealand. Port 0 is the modem port and supports V.92 56K Async PPP, V.92 data modem, V.44 data compression, and V.34 FAX modem and FAX functions such as ECM and 2D/1D conversion. Port 0 does not provide sync modem capabilities (SDLC and Sync PPP). Port 1 is the RVX port and supports multiple communications protocols. Select one of the following cables to attach to port 0 (modem port): #1010 Modem Cable-Austria #1011 Modem Cable-Belgium #1012 Modem Cable-Africa #1013 Modem Cable-Israel #1014 Modem Cable-Italy #1015 Modem Cable-France #1016 Modem Cable-Germany #1017 Modem Cable-United Kingdom #1018 Modem Cable-Iceland/Sweden #1021 Modem Cable-Finland/Norway #1022 Modem Cable-Netherlands #1023 Modem Cable-Swiss #1024 Modem Cable-Denmark #1025 Modem Cable-U.S./Canada Select one of the following cables to attach to port 1 (RVX port): #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0353 V.35 20-ft. PCI cable #0354 V.35 50-ft. PCI cable #0355 V.35 80-ft./24m PCI cable #0356 V.36 20-ft. PCI cable #0358 V.36 150-ft./45m PCI cable #0359 X.21 20-ft. PCI cable #0360 X.21 50-ft. PCI cable #0365 V.24/EIA232 80-ft. PCI cable #0367 Operations Console PCI Cable **Note**: The #0367 cable ships with a 25 pin to 9 pin adapter. Multiple #0367 cables can be ordered (but only one per #2793) to serve as consoles for secondary partitions when logical partitioning (#0140) is specified. ECS is supported from the RVX port and one of the following cables is required to support ECS; #0348, #0349 or #0365. ECS is supported from the Modem port (OS/400 V5R1 or later) The #2793 does not support the remote ring indicate function. For further configuration information, see: http://www.iseries.ibm.com/tstudio/planning/esa/esa.htm For communication restrictions using the #9771, see 6.5, “Soft rules: iSeries IOA requirements” on page 179. Minimum OS/400 level: V5R2

#2794 #9794	**#2794 Two-Line WAN IOA with Modem** The #2794/#9794 is a 2-line WAN w/Modem adapter and is the Complex Impedence Matching (CIM) version, which is offered only in Australia and New Zealand. Port 0 is the modem port and supports V.92 56K Async PPP, V.92 data modem, V.44 data compression, and V.34 FAX modem and FAX functions such as ECM and 2D/1D conversion. Port 0 does not provide sync modem capabilities (SDLC and Sync PPP). Port 1 is the RVX port and supports multiple communications protocols. Select one of the following cables to attach to port 0 (modem port): #1019 Modem Cable-Australia #1020 Modem Cable-China (Hong Kong S.A.R.)/New Zealand Select one of the following cables to attach to port 1 (RVX port); #0348, #0349, #0353, #0354, #0356, #0359, #0360, #0365 or #0367. Select one of the following cables to attach to port 1 (RVX port): #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0353 V.35 20-ft. PCI cable #0354 V.35 50-ft. PCI cable #0355 V.35 80-ft./24m PCI cable #0356 V.36 20-ft. PCI cable #0358 V.36 150-ft./45m PCI cable #0359 X.21 20-ft. PCI cable #0360 X.21 50-ft. PCI cable #0365 V.24/EIA232 80-ft. PCI cable #0367 Operations Console PCI Cable **Note**: The #0367 cable ships with a 25 pin to 9 pin adapter. Multiple #0367 cables can be ordered (but only one per #2794) to serve as consoles for secondary partitions when logical partitioning (#0140) is specified. ECS is supported from the RVX port and one of the following cables is required to support ECS; #0348, #0349 or #0365. ECS is supported from the Modem port (OS/400 V5R1 or later) The #2794 does not support the remote ring indicate function. For further configuration information, see: http://www.iseries.ibm.com/tstudio/planning/esa/esa.htm For communication restrictions using the #9771, see 6.5, “Soft rules: iSeries IOA requirements” on page 179. Minimum OS/400 level: V5R2
#2805	**#2805 PCI Quad Modem IOA** The #2805 is a 4-line WAN adapter with four WAN ports with internal modems. Connection to the ports is via telephone cable (RJ-11). This is the non-Complex Impedence Matching (CIM) version of the IOA. The supported protocols are: V. 92 56K Async PPP Fax applications at data rates up to 33.6K The V.92 functions offer increased upload throughput, improved V.44 data compression, and shortened modem synchronization periods. Co-requisite: Country-specific telephone cables must be ordered. A minimum of one modem cable and a maximum of four must be selected for each #2805. All modem cables on a system must be the same feature number. The supported modem cables are: #1010 Modem Cable-Austria #1011 Modem Cable-Belgium #1012 Modem Cable-Africa #1013 Modem Cable-Israel #1014 Modem Cable-Italy #1015 Modem Cable-France #1016 Modem Cable-Germany #1017 Modem Cable-United Kingdom #1018 Modem Cable-Iceland/Sweden #1021 Modem Cable-Finland/Norway #1022 Modem Cable-Netherlands #1023 Modem Cable-Swiss #1024 Modem Cable-Denmark #1025 Modem Cable-U.S./Canada **Note**: The feature is country-specific. Contact your IBM representative or Business Partner for details on availability.

#2805 (cont.)	Restrictions: The call waiting and modem on hold functions associated with V.92 are not supported. Remote Power On via ring-indicator, SDLC, and synchronous PPP are not supported. PCI card slots required: One. Minimum OS/400 level: OS/400 V5R1 with PTFs. For required PTF information, availability and ordering information, refer to Information APAR II13079 at: http://www-912.ibm.com/supporthome.nsf/document/10000035 The #2805 is a Customer Install Feature (CIF).
#2806	**#2806 PCI Quad Modem (CIM)** The #2806 is a 4-line WAN adapter with four WAN ports with internal modems. Connection to the ports is via telephone cable (RJ-11). This is the Complex Impedence Matching (CIM) version of the IOA. Supported protocols are: V. 92 56K Async PPP Fax applications at data rates up to 33.6K The V.92 functions offer increased upload throughput, improved V.44 data compression, and shortened modem synchronization periods. Co-requisite: Country-specific telephone cables must be ordered. A minimum of one modem cable and a maximum of two must be selected for each #2806. All modem cables on a system must be the same feature number. The supported modem cables are: #1019 Modem Cable- Australia #1020 Modem Cable- China (Hong Kong S.A.R.)/New Zealand **Note**: The feature is country-specific. Contact your IBM representative or Business Partner for details on availability. Restrictions: The call waiting and modem on hold functions associated with V.92 are not supported. Remote Power On via ring-indicator, SDLC, and synchronous PPP is not supported. PCI card slots required: One. Minimum OS/400 level: OS/400 V5R1 with PTFs. For required PTF information, availability and ordering information, refer to Information APAR II13079 at: http://www-912.ibm.com/supporthome.nsf/document/10000035 The #2806 is a Customer Install Feature (CIF).
#2817	**#2817 PCI 155 Mbps MMF ATM IOA** The #2817 is a 155 Mbps Asynchronous Transfer Mode (ATM) PCI card that allows the server to be attached to an ATM network using the Multi- Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2817 is typically used where 155 Mbps speeds are required over distances of less than 2Km. The #2817 is capable of supporting both multiple emulated LAN environments and enhanced TCP/IP performance with OS/400 V5R1. Technical specifications and industry standards supported are available at the ATM Forum Web site: http://www.atmforum.com This card is a 64-bit card, but is allowed to plug into any 32-bit or 64-bit slot. Minimum OS/400 level: V5R1 The #2817 is a Customer Install Feature (CIF).
#2849	**#2849 10/100 Mbps Ethernet Adapter** The #2849 allows an iSeries server to attach to standardized 100 Mbps high-speed Ethernet LANs and allows attachment to existing 10Mbps Ethernet LANs. The adapter comes standard with an RJ45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B. Maximum cable length is 100 meters. The #2849 is a Customer Install Feature (CIF) Minimum OS/400 level: V5R2 The #2849 is not supported on any Integrated Netfinity Server/Integrated xSeries Server.
#4723	**#4723 PCI 10 Mbps Ethernet Adapter**r The #4723 PCI 10 Mbps Ethernet Adapter provides single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. The feature consists of an adapter card and internal code which supplies Ethernet version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. The #4723 has an RJ45 connector and a 15 pin D-Shell connector for attachment to customer supplied cabling. A vendor AUI Ethernet cable or RJ45 twisted pair cable must be ordered separately. Restrictions: #4723 is not supported by #2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server. The #4723 is a Customer Install Feature (CIF).

#4745	**#4745 PCI 2-line WAN IOA** The #4745 supports up to two multiple protocol communications ports when one or two of these cables are attached: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0353 V.35 20-ft. PCI cable #0354 V.35 50-ft. PCI cable #0355 V.35 80-ft. PCI cable #0356 V.36 20-ft. PCI cable #0358 V.36 150-ft. PCI cable #0359 X.21 20-ft. PCI cable #0360 X.21 50-ft. PCI cable #0365 V.24/EIA232 80-ft. PCI cable #0367 Operations Console PCI Cable Multiple #0367s can be ordered (but only one allowed per #4745) to serve as consoles for secondary partitions when logical partitioning (#0140) is specified. When the #4745 is selected to support ECS, one of these cables must be specified: #0348 V.24/EIA232 20-ft. (6m) PCI cable (default) #0349 V.24/EIA232 50-ft. (15m) PCI cable #0365 V.24/EIA232 80-ft. PCI cable The #4745 is a Customer Install Feature (CIF).
#4750	**#4750 PCI ISDN BRI U IOA** The #4750 is a four-port (eight channel) ISDN BRI (basic rate) full sized PCI card. Each port consists of 2B+D configuration. The #4750 is the "U"-bus (2 wire) version of the ISDN BRI PCI card. The #4750 supports these protocols: SLIP/PPP IDLC Fax Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #4750. This counts as eight lines toward the system communication maximums. Restrictions: Requires long PCI card slot. The #4750 is a Customer Install Feature (CIF).
#4751	**#4751 PCI ISDN BRI S/T IOA** The #4751 is a four-port (eight channel) ISDN BRI (basic rate) full sized PCI card. Each port consists of 2B+D configuration. The #4751 is the "S/T"-bus (4 wire) version of the ISDN BRI PCI card. The #4751 supports these protocols: SLIP/PPP IDLC Fax Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #4751. This counts as eight lines toward the system communication maximums. Restrictions: Requires long PCI card slot. The #4751 is a Customer Install Feature (CIF).
#4761	**#4761 PCI Integrated Analog Modem** The #4761 is based on the latest Digital Signal Processor (DSP) technology. The #4761 allows the modem function to be integrated into the IOA and supports multiple analog modem ports (eight phone lines). The #4761 supports these protocols without the need for an external modem: SLIP/PPP SDLC Fax V5R1 is the last release to support non-Fax functions on the #4761. An ASYNC line description is required for Fax and can only be used for Fax. To the iSeries or AS/400e server, the #4761 appears like a single IOA with eight individual line resources available. 30-ft. (8m) phone cables are shipped with each #4761. This counts as eight lines toward the system communication maximums. Restrictions: Requires long PCI card slot. The #4761 is a Customer Install Feature (CIF).
#4801	**#4801 PCI Cryptographic Coprocessor** The #4801 is a hardware cryptography solution. The #4801 is a half-length PC form-factor PCI card that offers a rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption and triple DES capability. The #4801 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program that is downloaded to the adapter. Due to temperature requirements (card temperature must not drop below 5 F (-15 C)), the #4801 is shipped separately from the system in a special package. The #4801 is a Customer Install Feature (CIF).

#4805	**#4805 Cryptographic Accelerator** The #4805 provides improved performance for high transaction rate secure Web applications that use the secure sockets layer (SSL) or transport layer security (TLS) protocols. The process of using SSL/TLS secure Web connections is very compute intensive. The Cryptographic Accelerator can be used to offload cryptographic processing from the main CPU. SSL/TLS secure Web connections are used to protect information (for example, credit card number) as it is transferred over the Internet – for example between a Web browser and a server. The Cryptographic Accelerator is targeted to high transaction rate secure Web applications using SSL/TLS. If your application requires a FIPS 140-1 certified, tamper-resistant module for storing cryptographic keys or requires financial PIN processing, then the #4801 PCI Cryptographic Coprocessor should be your choice. **Note**: Federal Information Processing Standard (FIPS) 140-1 is a U.S. Government National Institute of Standards and Technology (NIST) administered standard and certification program for cryptographic modules. There is a maximum of two per IOP. Prerequisites: Available PCI card slot under a feature IOP (not under a base or embedded IOP in the system unit). The #4801 is a Customer Install Feature (CIF). Minimum OS/400 level: V5R2
#4815	**#4815 PCI ATM 155 Mbps UTP OC3** The #4815 is a 155 Mbps Asynchronous Transfer Mode (ATM) PCI card that allows the iSeries or AS/400e server to be attached to an ATM network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #4815 is typically used where 155 Mbps speeds are required over distances of less than 100 meters. Technical specifications and industry standards supported are available at the ATM Forum Web site: http://www.atmforum.com The #4815 is a Customer Install Feature (CIF).
#4816	**#4816 PCI ATM 155 Mbps MMF** The #4816 is a 155 Mbps Asynchronous Transfer Mode (ATM) PCI card that allows the iSeries or AS/400e server to be attached to an ATM network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #4816 is typically used where 155 Mbps speeds are required over distances of less than 2 Km. Technical specifications and industry standards supported are available at the ATM Forum Web site: http://www.atmforum.com **Note:** The #4816 is still orderable for use in V4R5 Secondary Partitions. For V5R1 systems or partitions, the #2817 PCI 155 Mbps MMF ATM IOA should be ordered. The #4816 is a Customer Install Feature (CIF).
#4818	**#4818 PCI ATM 155 Mbps SMF OC3** The #4818 is a 155 Mbps Asynchronous Transfer Mode (ATM) PCI card that allows the iSeries or AS/400e server to be attached into an ATM network using the Single-Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment. The #4818 is typically used where 155 Mbps speeds are required over distances of from 16 to 40 Km. Technical specifications and industry standards supported are available at the ATM Forum Web site: http://www.atmforum.com The #4818 is a Customer Install Feature (CIF).
#4838	**#4838 PCI 100/10 Mbps Ethernet IOA** The #4838 PCI 100/10 Mbps Ethernet IOA feature allows the iSeries or AS/400e server to attach to standardized 100 Mbps high-speed Ethernet LANs and to attach to existing 10 Mbps Ethernet LANs. The adapter comes standard with an RJ45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, and cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B. Maximum cable length is 100 meters. This Ethernet IEEE 802.3 IOA is capable of operating in half or duplex mode. If the #4838 is selected to run on the #2790 PCI Integrated Netfinity Server or #2791/#2799 PCI Integrated xSeries Server, then specify code #0224 is required for each #4838 selected to run on the #2790/#2791/#2799. The #4838 is a Customer Install Feature (CIF).
#9771	**#9771 Base PCI Two-Line WAN with integrated modem** The #9771 is a two-line WAN adapter. One port supports V.90 56K async data on PPP via an internal modem. The second port supports multiple protocol communications (WAN). Connection to the V.90 port uses a telephone cable. Connection to the WAN communication port is through one of these cables: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0353 V.35 20-ft. PCI cable #0354 V.35 50-ft. PCI cable #0355 V.35 80-ft./24m PCI cable #0356 V.36 20-ft. PCI cable #0358 V.36 150-ft./45m PCI cable #0359 X.21 20-ft. PCI cable

#9771 (cont.)	#0360 X.21 50-ft. PCI cable #0365 V.24/EIA232 80-ft. PCI cable #0367 Operations Console PCI Cable The #9771 supports the #0367 Operations Console PCI Cable on the WAN (RVX) port to directly connect the Operations Console for V5R1 or later or with V4R5 and PTF MF25397 (not in cumulative PTF). Direct connection of the Operations Console is mutually exclusive with V.90 support of the dial-in Operations Console. The #9771 supports the #5544 System Console on Operations Console on the V.90 port for *dial-in* Operations Console with V5R1. An additional #4745 is required on V4R5 systems for *dial-in* Operations Console support. The #9771 ships with a country-specific telephone cable. No modem cable feature is required on the order. ECS is supported over TCP/IP on the V.90 telephone cable port with V5R1, or with V4R5 and PTF SF64124. Fax is supported on the V.90 port with V5R1, or with V4R5 and PTFs MF25290 and SF64604. To support ECS on the WAN port of the #9771, specify one of these cables: #0348 V.24/EIA232 20-ft. (6m) PCI cable (Default) #0349 V.24/EIA232 50-ft. (15m) PCI cable #0365 V.24/EIA232 80-ft. PCI cable ECS operates on the WAN port of the #9771 by changing the *RSRCNAME parameter of the QESLINE and QTILINE line descriptions to that of the WAN port on the #9771 card. Remote Power On is not supported. The #9771 does not support the remote ring indicate function. For further configuration information, see: http://www.iseries.ibm.com/tstudio/planning/esa/esa.htm For communication restrictions using the #9771, see 6.5, “Soft rules: iSeries IOA requirements” on page 179. Minimum OS/400 level: V4R5 with supporting PTFs
DISK UNITS	
#08xx	**Load Source Specify** Starting with the V5R1 announcement, one of these specify codes is required on all initial orders of a Model 270: #0826 - #4314 Load Source specify #0827 - #4324 Load Source specify #0828 - #4317 Load Source specify #0829 - #4318 Load Source specify Manufacturing uses this specify to place a corresponding disk unit feature in the load source position. These specify codes can be changed on model upgrades or on simple MES orders.
#4314	**#4314 8.58 GB Disk Unit (Ultra SCSI)** The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM). Maximum: Four on SB2. Six on SB3 #2316. Eight on SB3 #2618. The #4314 is a Customer Install Feature (CIF).
#4317	**#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)** The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity. Maximum: Four on SB2. Six on SB3 #2316. Eight on SB3 #2618 The #4317 is a Customer Install Feature (CIF). Withdrawn from marketing effective 03 December 2002 for new orders. Feature conversions to #4317 remain available.
#4318	**#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)** The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity.Maximum: Four on SB2. Six on SB3 #2316. Eight on SB3 #2618. The #4318 is a Customer Install Feature (CIF).
#4324	**#4324 17.54 GB Disk Unit (Ultra SCSI)** The #4324 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Maximum: Four on SB2. Six on SB3 #2316. Eight on SB3 #2618. Minimum OS/400 level: V4R4 The #4324 is a Customer Install Feature (CIF).

#4331	**#4331 1.6 GB Read Cache Device** The #4331 feature provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #4748 PCI RAID Disk Unit Controller. **Note**: The #4331 is installed in the left-most slot of each five-pack partition and only takes one slot. Maximum: One per #4748 IOP. The #4331 is a Customer Install Feature (CIF).
	INTERNAL TAPE UNITS AND CD-ROM
#4425	**#4425 CD-ROM** The #4425 is a feature CD-ROM device that can be mounted in the system unit. The #4425 can be used for alternate IPL (IBM distributed CD-ROM media only) and program distribution. At least one CD-ROM or DVD-RAM is required per iSeries server. The #4425 is a Customer Install Feature (CIF).
#4430	**#4430 DVD-RAM** The #4430 is a feature DVD-RAM device that can be mounted in the system unit of Model SB2 or SB3. It is a 5.25-inch half-high device which installs in a removable media slot. The #4430 is capable of writing and reading 4.7 GB on a single disk (single side). For double sided media, the media must be manually flipped. It is also capable of reading 650 MB CD-ROM disks. The #4430 can be used for alternate IPL, program distribution, and data interchange. It cannot be used as an Alternate Load Device with OS/ 400 V5R1. Prerequisites: Disk unit controller in CEC/ tower where device is mounted. At least one DVD-RAM or CD-ROM is required per iSeries server. Minimum OS/400 V4R5 with PTFs or OS/ 400 V5R1 The #4430 is a Customer Install Feature (CIF).
#4482	**#4482 4 GB ¼-inch Cartridge Tape Unit** The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. The #4482 is a 4 GB ¼-inch cartridge tape unit that can be mounted in the system unit. The #4482 is a Customer Install Feature (CIF).
#4483	**#4483 16 GB ¼-inch Cartridge Tape Unit** The #4483 is a 4 GB ¼-inch cartridge tape unit that can be mounted in the system unit. Can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. See 16.8, “QIC format compatibility for iSeries and AS/400e systems” on page 531, for supported media types. The #4483 is a Customer Install Feature (CIF).
#4486	**#4486 25 GB ¼-inch Cartridge Tape Unit** The #4486 is a 4 GB ¼-inch cartridge tape unit that can be mounted in the system unit. It can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. See 16.8, “QIC format compatibility for iSeries and AS/400e systems” on page 531, for supported media types. The #4486 is a Customer Install Feature (CIF).
#4487	**#4487 50 GB ¼-inch Cartridge Tape Unit** The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Can be mounted in the system unit of Models SB2 and SB3, and in the #5074/#5079 PCI Expansion Towers. Prerequisite: A disk unit controller in CEC/tower where device is mounted. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature (CIF).
#4684	**#4684 30 GB ¼-inch Cartridge Tape Unit** The #4684 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #4684 maybe used for save/restore, alternate IPL, program distribution, migration and ¼-inch cartridge tape exchange. See 16.8, “QIC format compatibility for iSeries and AS/400e systems” on page 531, for supported media types. The #4684 is a 30 GB ¼-inch cartridge tape unit that can be mounted in the system unit of Models 830, 840, SB2, SB3, in the #5074/#5079 PCI Expansion Towers, #8093 and the #9094 Base PCI I/O Enclosure of the Model 890. The #4684 is a Customer Install Feature (CIF).

MAGNETIC MEDIA CONTROLLERS	
#0208	**No Alternate Install Device Use Required** Adding the #0208 specify on an order forces manufacturing to place the external tape adapter on the first Multi-Adapter Bridge. Having the external tape adapter on the first Multi-Adapter Bridge does not require a customer to use the Alternative Installation Device option of DST in conjunction with a D-mode IPL. Forcing the external tape adapter on the first Multi-Adapter Bridge can result in a higher cost system configuration due to the need of additional PCI IOPs. When selected in the configurator, the external alternate IPL tape controller must be placed on the first Multi-Adapter Bridge of the CEC. If due to other system constraints, such placement of the alternate IPL tape controller is not possible, and then the order is not valid and flagged as such. Valid on initial order and simple MES orders for Model 270s.
#2749	**#2749 PCI Ultra Magnetic Media Controller** The #2749 is an Ultra SCSI IOA that provides attachment capability for external tape devices and external optical devices. The #2749 can attach one tape drive OR one optical drive. These tape devices can be attached: ► 3490E E01/E11 ½-inch cartridge tape subsystem ► 3490 F00/F01/F11/F1A ½-inch cartridge tape subsystem ► 3490E C11/C22/C1A/C2A with feature #5040 ► 3494 Tape Library Dataserver L10 Library Control Unit Frame 1 3490E C1A/C2A with #5040 or 1-2 3490E F1A L12 Library Control Unit Frame 1-2 3590 B1A D10 Device Frame 1 3490E C1A/C2A with #5040 or 1-2 3490E F1A, 300 cartridges D12 Device Frame 1-6 3590 B1A, 300 cartridges HA1 (High Availability)—2 L1X and 2 D1X for redundancy ► 3570 0.31-inch Cartridge Tape Subsystem Model B0x (standalone) Model B1x (rack mount) Model B1A(mounts in 3575) Model C0x (standalone) Model C1x (rack mount) Model C1A (mounts in 3575) ► 3575 0.31-inch Cartridge Tape Subsystem Model Lxx ► 358X-Hxx/Lxx/Dxx Tape Cartridge Subsystem ► 3590 ½-inch Cartridge Tape Subsystem Model B11 (mounts into 9309 rack) Model B1A (mounts into 3494 library) Model E11 (mounts into 9309 rack) Model E1A (mounts into 3494 library) ► 3995-Cxx Optical Library Dataserver ► 7208-012 5.0 GB 8mm cartridge tape unit ► 7208-222 7.0 GB 8mm cartridge tape unit ► 7208-232 8MM Dual 5.0 GB cartridge tape subsystem #0501 counts as one 7208 #0502 counts as two 7208s ► 7208-234 8 MM Dual 7.0 GB cartridge tape subsystem Counts as two 7208s ► 7208-342 20.0 GB 8 mm Cartridge Tape Bridge Box ► 9348-00x ½-inch Reel Tape Unit - Rack Mount ► 9427-2108 8 mm Library Attach The #2749 is a Customer Install Feature (CIF).
#2765	**#2765 PCI Fibre Channel Tape Controller** The #2765 provides fibre channel attachment capability for external tape devices. The #2765 supports point-to-point and arbitrated loop topologies and has an LC type cable connector. Each #2765 is shipped with a wrap connector (P/N 05N6767). The devices supported for fibre channel attachment are: 3534-1RU SAN Fibre Channel Managed Hub 3584-L32 or D32 Ultrascalable Tape Library 3590 ½-inch Cartridge Tape Subsystem Models E11 and E1A The #0163 Fibre Channel Attach Specify is required for each device attaching to an iSeries server via a #2765 These adapter kits are required when connecting SC type cables to the #2765: ► #0371 - LC-SC Adapter Kit (50 micron) can be ordered, both on initial, model upgrades, and simple MES orders. This optional kit is used to attach SC-type fibre (50 micron) cables to a #2765. This kit contains a 2m LC-ST cable and ST-SC adapter for 50 micron fiber. ► #0372 - LC-SC Adapter Kit (62.5 micron) can be ordered, both on initial, model upgrades, and simple MES orders. This optional kit is used to attach SC-type fibre (62.5 micron) cables to a #2765. This kit contains a 2m LC-ST cable and ST- SC adapter for 62.5 micron fiber.

#2765 (cont.)	**Note:** An optics cleaning kit (P/N 46G6844) and instruction sheet instruction sheet (P/N 21P6238, form number SY27-2604) is supplied, one per system, when a #2765/#2766 is ordered. Restrictions: A maximum of one tape unit can be connected per #2765. Customers must supply all fibre channel cables for this controller. Minimum OS/400 level: V5R1 The #2765 is a Customer Install Feature (CIF).
#2768	**#2768 PCI Magnetic Media Controller** The #2768 provides Ultra SCSI attachment capability for an external tape, an external CD-ROM device, or an external DVD-RAM device that has a Single Ended SCSI interface. The #2768 supports these devices: 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) 7208-345 60 GB External 8mm Tape Drive 7210-020 External CD-ROM 7210-025 External DVD-RAM 7329-308 SLR100 ¼-inch Tape Autoloader See 16.7.4, "#2718/#2768 PCI Magnetic Media Controller: Device cabling rules" on page 530, for information on connecting devices to the #2768. The #2768 is a Customer Install Feature (CIF).
#9748	**#9748 Base PCI RAID Disk Unit Controller** The #4748/#9748 is an Ultra2 SCSI controller with a 26 MB write-cache that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROM units. The #4748/#9748 supports both compression and non-compression modes. The mode of operation is determined by a hardware jumper. The #4748/#9748 is shipped in non-compression mode. By moving the hardware jumper, the controller functions in compression mode. In addition to providing RAID-5 protection for disks, the #4748/#9748 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. The #4748 also supports the #4331 1.6 GB Read Cache Device which provides increased performance. The #4331 1.6 GB Read Cache Device is supported only when the #4748/#9748 is *not* in compression mode. **Note**: The #9748 does not support data compression on 35 GB disk units. The #4748 controller supports a maximum of eight disk units on the SB3 and four on the SB2. The #9748 is the base disk controller for SB2 and SB3. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. All disk units in an array must be of the same capacity. Parity is spread across four disk units for arrays of four to seven disk units. Parity can be spread across either four or eight disk units. For systems started with 8 to 10 disk units in an array the parity, for that array, is spread across eight disk units. For systems that are started with less than eight disk units in an array and later MES upgraded to eight, the RAID function must be stopped and then started before the parity is spread across eight disk units. The #4748/#9748 controls up to two removable media devices (internal tape or CD-ROM). The #9748 is a Customer Install Feature (CIF). Withdrawn from marketing effective 02 July 2002 for new orders. Feature conversions to #4748/#9748 are still available.
#9778	**#9778 Base PCI RAID Disk Unit Controller–104 MB Cache** The #9778 is an Ultra2 SCSI controller with a 104 MB write-cache that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROM units. The #9778 supports both compression and non-compression modes. The mode of operation is determined by a hardware jumper. The #9778 is shipped in non-compression mode. By moving the hardware jumper, the controller functions in compression mode. In addition to providing RAID-5 protection for disks, the #9778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. The #9778 also supports #4331 1.6 GB Read Cache Device, which provides increased performance. The #4331 1.6 GB Read Cache Device is supported only when the #4748/#9748 is *not* in compression mode. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of ten disk units allowed per array. All disk units in an array must be of the same capacity. Parity is spread across four disk units for arrays of four to seven disk units. Parity can be spread across either four or eight disk units for arrays of eight to ten disk units. For systems started with eight to ten disk units in an array, the parity for that array is spread across eight disk units. For systems that are started with less than eight disk units in an array and later MES upgraded to eight, nine, or ten disk units, the RAID function must be stopped and then started before the parity is spread across eight disk units. The #9778 controls up to two removable media devices (internal tape, CD-ROM, or DVD-RAM). Restrictions: Requires long PCI card slot. Only one allowed in CEC and is mutually exclusive with #9748. Minimum OS/400 level: V5R1 The #9778 is a Customer Install Feature (CIF).

5.3 iSeries Model SB2 and SB3 upgrade

Legend for the SB2 and SB3 upgrade table

The “B” value in the upgrade table indicates the type of upgrade supported. “B” indicates a Plant or MES installation. The CE upgrades the installed system with a box of parts (a parts order). There are no field upgrades for the SB3 model system unit.

The model SB3 #2316 processor can be upgraded to the Model SB3 #2318 processor.

Upgrades from SB2 to SB3 are not supported.

Model SB3		
	To	2318
From		
SB3		
2316		B

RISC to RISC data migration (#0205): The #0205 specify code is used when a customer orders a new (RISC) AS/400e server to replace an existing (RISC) AS/400e. The #0205 is orderable on any initial order AS/400e server Model 170 or 7xx. Preloading Licensed Programs, by manufacturing, is not allowed with #0205. Manufacturing only loads SLIC up through QSYS of OS/400 when #0205 is ordered.

The #0205 and #5000 are mutually exclusive.