



# IBM System i Model 515 offers new levels of price performance

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## At a glance

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System i model 515 Express Configurations offer:

- i5/OS Licensing by User, consistent with industry-accepted terms and concepts
- More affordable entry price
- Design for both traditional and new solutions

### For ordering, contact:

Your IBM representative or the Americas Call Centers at

**800-IBM-CALL** Reference: YE001

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## Overview

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The System i™ model 515 delivers the full capabilities of POWER5+™ and i5/OS™ for entry system clients, regardless of the size of their enterprise or budget. And now, with new i5/OS licensing by user, the model 515 delivers the performance to run the applications that today's businesses require in an affordable package.

With an attractive entry point, and with the options valued by small- to medium-sized clients, the 515 is ideal for small businesses that want an easy-to-install, manageable system that offers the performance and reliability that you expect from IBM.

Benefits include:

- Security and virus resistance to help ensure your system's reliability
- Ability to run i5/OS, Linux™, and AIX 5L™ applications on a single system and integrate IBM xSeries® servers running Windows™
- 515 Express Configurations that include many of the base software capabilities your business needs
- 1- or 2-way system with a 1.9 GHz POWER5+ processor
- Support for 5 to 40 i5/OS users with a P05 software tier
- Built to your specific order and customizable

Order the model 515 as a 9407-515. It features a one-year limited warranty with 9 x 5, next-business-day (NBD) customer replaceable unit (CRU) and on-site service, which can be upgraded to 24 x 7, same-day service with service offerings. Depending on the configuration you choose, three months or one year of Software Maintenance for System i is included and can be expanded to either one or three years.

### Planned availability date

April 20, 2007

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## Description

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The model 515 is a 1-way or 2-way system that uses a 1.9 GHz POWER5+ processor with L3 cache.

The i5/OS licensing by user associated with the model 515 gives you added flexibility. Previously, the System i model 520 provided unlimited i5/OS user license entitlements but offered a range of systems with small-to-large amounts of computing capacity (batch and 5250 CPW). A growing number of small- to midsize clients requested larger amounts of computing capacity for a wider range of applications. Many of these clients have a relatively modest number of system users and will find the model 515 to be a good match for their business.

The model 515 offers i5/OS V5R4 license entitlements for 5 to 40 users, offered in blocks of five users. There is also an option for an unlimited number of i5/OS user entitlements for users external to your organization, such as customers, business partners, or suppliers.

The model 515 includes applications such as i5/OS security and workload management tools, industry standard-based IBM DB2® UDB database, and IBM WebSphere® Application Server Express for Web serving.

Each model 515 system is built to your specific order and can be customized to your needs. The model 515 features an integrated set of hardware capabilities, including two 1 Gbps Ethernet LAN ports and a disk, tape, or DVD drive controller in the base. It is available as either a deskside/tower configuration or as a rack-mount configuration. As a rack-mount configuration, it can be placed in a 19-inch rack such as the System i 25U (1.3 m) or 36U (1.8 m) rack and requires only 4 EIA units or 4U.

The model 515 provides the full power of its POWER5+ processor. For applications that are not I/O intensive, this translates to 3800 CPW (batch or 5250) for the 1-way system and 7100 CPW (batch or 5250) for the 2-way system. For applications that are disk I/O intensive, this translates to 800 CPW (batch or 5250) for either the 1-way or 2-way 515. The model 515 has a maximum of eight disk drives.

You must ensure that you have an adequate number of i5/OS license entitlements to cover your system's i5/OS users. IBM provides several tools to help measure and monitor the quantity of users.

### **Model 515 configurations overview**

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The minimum functional system consists of the base system unit, base features, and selected priced features. Attachment of I/O towers/drawers is not supported. A variety of LAN and WAN adapters, an iSCSI adapter, a SCSI external tape controller, and rack options are available. Each model 515 system unit has:

- Maximum of 16 GB of memory
- Maximum of 560 GB disk capacity
- Eight memory slots
- Six PCI-X slots
- Eight disk slots (four enabled)
- One half-high slot for removable media
- Two slimline slots for DVD drives
- Two 1 Gbps/100 Mbps/10 Mbps Ethernet LAN ports
- Two SPCN ports
- Two serial ports
- Two HMC ports
- Two USB ports
- Disk, DVD, tape controller

i5/OS V5R4 supports the use of all of the preceding hardware elements except one slimline slot, two serial ports, and two USB ports. These components are reserved for other operating systems running on the model 515.

Neither the integrated controller nor the integrated Ethernet adapter, which drives the two Ethernet LAN ports, uses any of the six PCI-X slots. You can add 40 MB write cache to the integrated disk controller to provide a disk performance boost and to enable RAID-5 capability and still require no PCI-X slot. An IOP or ECS WAN adapter can be included as part of the configuration definition. Each uses one of the six PCI-X slots.

The model 515 includes four disk slots driven by the imbedded disk/tape/DVD controller. The second set of four disk slots is driven by a disk controller placed in one of the PCI slots. Either all eight disk slots can be owned by an i5/OS partition, or an i5/OS partition can own the first set of four disk slots, and another partition can own the second set. The disk controller for the second set of four disk slots has 90 MB write cache. The imbedded disk controller can optionally have 40 MB write cache. 70.56 GB 15,000 rpm disk drives are supported in the disk slots.

The model 515 supports either a 36 GB 4 mm DAT tape drive or a 30 GB QIC tape drive in the system unit that is run by the imbedded disk/tape/DVD controller. You can also attach an external tape drive via a PCI-X SCSI tape controller. The PCI-X tape controller requires a PCI slot.

The model 515 supports your choice of system console.

If you need LPAR capability, the Advanced Power Virtualization (APV) feature is required. APV enables you to use partitioning, Micro-Partitioning™, and Virtual I/O Server capabilities.

The model 515 supports hot-plug disk slots, hot-plug PCI-X slots, and redundant hot-plug cooling fans. An optional redundant hot-plug power supply is available.

### **Summary of System i 515 configurations**

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	1-Way	2-Way	Maximum
Server feature	4901	4903	
Processor group	P05	P05	
Processor (1.9 GHz)	8327x1 (1-Way)	8330x1 (2-Way)	
Unconstrained CPW(1)	3,800	7,100	
Constrained CPW(1)	800	800	
Main storage	1 GB	1 GB	16 GB
Disk storage	70 GB	70 GB	560 GB
Disk controller	1	1	2
Disk arms	1	1	8
Internal DVD/tape (Maximum: (2 DVDs, 1 tape))	0	0	3
External tape/optical/DVD	0	0	2
Physical packaging			
I/O towers/drawers	0	0	0
PCI card slots	6	6	6
Twinnaxial controller	0	0	1
Communication lines	2	2	12
LAN lines	2	2	8
Windows integration			
Internal xSeries Servers	0	0	0
Internal xSeries Adapters	0	0	0
iSCSI adapter	0	0	5

(1) Processor CPW and 5250 CPW values for the 515 are equal.

**Note:** Some maximums and combinations of devices may be subject to configuration restrictions.

**Main storage consideration:** The model 515 uses DDR2 memory DIMMs that are plugged in pairs. Each 515 DDR2 memory feature represents one pair of DIMMs. A model 515 requires a minimum of one and a maximum of four memory features.

## **System i5™ 515 configurations**

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The 9407 model 515 is an express offering with two kinds of packaged configurations, each designated by a configuration feature. Choose either an Express Configuration or a Base Product Configuration.

An Express Configuration features a package of popular options that should fit many of your system needs at an attractive package price. A Base Product Configuration includes few preselected options and gives you more flexibility in adding options. You can add more features to the Express Configuration or Base Product Configuration, either initially or as an MES.

A tape drive is offered at no additional charge in model 515 Express Configurations and is placed inside the 515 system unit. Depending on the Express Configuration, either the 36 GB 4 mm tape drive or the 30 GB QIC tape drive is included. You can replace the 4 mm tape drive with the 30 GB QIC tape drive in the system unit for an additional charge.

For more information on edition content, including specific ordering details and IBM configuration implementation, visit

<http://www-03.ibm.com/systems/i/editions>

### **Model 515 Express Configuration 1 (#6010):**

#### **Function**

- Support for multiple operating systems (i5/OS, AIX 5L, and Linux)<sup>2</sup>
- Support for LPAR (up to 10 partitions per processor)<sup>2</sup>
- Support for 5250 OLTP (up to maximum CPW)

#### **Software**

- Licensing for i5/OS (one processor license)
- Licensing for 5 i5/OS internal users (5722-SSC)
- IBM Director for iSeries™ (5722-DR1)
- IBM Web Enablement (5722-WE2)
- IBM iSeries Access (5722-XW1) unlimited users

#### **Hardware**

- 1-way system with one processor activation
- 1 GB memory
- Two 70 GB disk drives
- One 36 GB 4 mm tape drive
- One DVD ROM drive
- One WAN IOA

#### **Support**

Software Maintenance: Three months

<sup>2</sup> With purchase of Advanced Power Virtualization (APV) feature (#7966)

### **Model 515 Express Configuration 2 (#6011):**

#### **Function**

- Support for multiple operating systems (i5/OS, AIX 5L, and Linux)<sup>2</sup>

- Support for LPAR (up to 10 partitions per processor)<sup>2</sup>
- Support for 5250 OLTP (up to maximum CPW)

#### **Software**

- Licensing for i5/OS (one processor license)
- Licensing for 5 i5/OS internal users (5722-SSC)
- IBM Director for iSeries (5722-DR1)
- IBM Web Enablement (5722-WE2)
- IBM iSeries Access (5722-XW1) unlimited users
- IBM Query (5722-QU1)
- IBM DB2 Query Manager and SQL Development Toolkit (5722-ST1)

#### **Hardware**

- 1-way system with one processor activation
- 1 GB memory
- Two 70 GB disk drive
- One 30 GB QIC tape drive
- One DVD ROM drive
- One WAN IOA

#### **Support**

Software Maintenance: One year

#### **Model 515 Express Configuration 3 (#6021):**

##### **Function**

- Support for multiple operating systems (i5/OS, AIX 5L, and Linux)<sup>2</sup>
- Support for LPAR (up to 10 partitions per processor)<sup>2</sup>
- Support for 5250 OLTP (up to maximum CPW)

##### **Software**

- Licensing for i5/OS (two processor licenses)
- Licensing for 5 i5/OS internal users (5722-SSC)
- IBM Director for iSeries (5722-DR1)
- IBM Web Enablement (5722-WE2)
- IBM iSeries Access (5722-XW1) unlimited users
- IBM Query (5722-QU1)
- IBM DB2 Query Manager and SQL Development Toolkit (5722-ST1)

##### **Hardware**

- 2-way system with two processor activations
- 4 GB memory
- 40 MB integrated write cache
- Four 70 GB disk drives
- One 36 GB 4 mm tape drive

- One DVD ROM drive
- One WAN IOA

### **Support**

Software Maintenance: One year

### **Model 515 Base Product Configuration 1 (#6018):**

#### **Function**

- Support for multiple operating systems (i5/OS, AIX 5L, and Linux)<sup>2</sup>
- Support for LPAR (up to 10 partitions per processor)<sup>2</sup>
- Support for 5250 OLTP (up to maximum CPW)

#### **Software**

- Licensing for i5/OS (one processor license)
- Licensing for 5 i5/OS internal users (5722-SSC)
- IBM Director for iSeries (5722-DR1)
- IBM Web Enablement (5722-WE2)

#### **Hardware**

- 1-way system with one processor activation
- One DVD ROM drive
- One WAN IOA

### **Support**

Software Maintenance: Three months

### **Model 515 Base Product Configuration 2 (#6028):**

#### **Function**

- Support for multiple operating systems (i5/OS, AIX 5L, and Linux)<sup>2</sup>
- Support for LPAR (up to 10 partitions per processor)<sup>2</sup>
- Support for 5250 OLTP (up to maximum CPW)

#### **Software**

- Licensing for i5/OS (one processor license)
- Licensing for 5 i5/OS internal users (5722-SSC)
- IBM Director for iSeries (5722-DR1)
- IBM Web Enablement (5722-WE2)

#### **Hardware**

- 2-way system with two processor activations
- One DVD ROM drive
- One WAN IOA

### **Support**

Software Maintenance: Three months

### **Accessibility by people with disabilities**

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You can request a U.S. Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance at

[http://www-3.ibm.com/able/product\\_accessibility/index.html](http://www-3.ibm.com/able/product_accessibility/index.html)

## **Section 508 of the U.S. Rehabilitation Act**

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IBM System i models are capable, when used in accordance with IBM's associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assisting technology used with the product properly interoperates with it.

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## **Product positioning**

If you are an entry client, and you are not currently using a System i platform, the 515 Express Configuration 1 should fit your needs. The Express Configuration 2 is a better fit if you are an installed client who values your QIC tape cartridges. Note that Express Configurations 2 and 3 include one-year software maintenance support.

If you require unusual configurations and the no-charge options included in an Express Configuration are not of value to you, the Base Product Configurations enable you to choose the options that you want.

Compared to the smaller performance points of the System i model 520, the model 515 offers significantly more unconstrained processing capacity. It has a P05 software tier, including the 2-way model 515.

The model 515 allows a maximum of 40 i5/OS users versus the 520 models, on which i5/OS is only licensed by processor. For users external to your business — customers, suppliers, or business partners — you can purchase an i5/OS External Access entitlement to allow an unlimited number of external users.

The model 520 or 525 offers much greater expansion capability, 2x more memory, 15x more PCI slots, 34x more disk drives and many more types of I/O, including Fibre Channel adapters, disk controllers, smaller or larger disk drives, and expansion I/O towers/drawers. The model 520/525 LPAR support is also greater based on the additional memory and I/O capabilities.

Unlike the 9406 or 9405 systems, the 9407 model 515 requires an APV feature in order to create a partition.

Although the model 515 has performance ratings of 3800 and 7100 CPW, they assume unconstrained I/O. These values are very useful for applications that are not I/O intensive and require a lot of CPU horsepower. This measurement approach is consistent with the way CPW values are shown for all other models and is helpful in comparing with other workloads. However, the model 515 eight-disk arm maximum can greatly impact the actual production workload you may attain. For applications that are I/O intensive, use 800 CPW as a planning number. It is always recommended that you use tools such as the IBM Systems Workload Estimator to help size the 515 for your environment.

Compared to the 9405-520 Express Configurations or the 9406-520 Value Editions, the model 515 1-way has no specific limitation on 5250 CPW and offers maximum processor performance without the need for an accelerator feature. It also offers an upgrade path to a 2-way system for additional customer CPU growth. But note that the I/O maximums do not change between the 1-way and 2-way 515.

Like the 9405-520 Express Configurations and the 9406-520 Value Editions, the 9407 model 515 is a "new box" system. MES upgrades protecting the existing System i or AS/400® system's serial number are not offered. Upgrades from the model 515 to other models are not provided.

Compared to the 520 Enterprise Editions with 1000, 1200, 2400, or 2800 CPW, the model 515 offers significantly more unconstrained CPW for compute-intensive applications such as WebSphere, Java™, or Collaboration. However, depending on the number of users, memory, and I/O requirements, the model 520 or 525 may be a better fit.

Compared to the model 520 3800 CPW Standard Edition or several specialized editions such as the Collaboration or Telephony Editions, the model 515 memory, I/O, and user maximums may suggest that the 520 is a better fit.

The 9407 model 515 one-year limited warranty of 9 x 5, NBD, CRU, and on-site service differs from the 9406 one-year limited warranty of 24 x 7 same-day, CRU, and on-site service. On the model 515, installation of Tier 1 CRUs is your responsibility. Examples of a Tier 1 CRU are a failed disk drive, failed I/O adapter, or failed power supply. If IBM installs a Tier 1 CRU at your

request, you will be charged for the installation. To get the same level of service on your model 515 as on a model 520, you can purchase a higher level of service.

## Business Partner information

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If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

BP Attachment for Announcement Letter 107-181

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=107-181>

## Trademarks

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Linux is a trademark of Linus Torvalds in the United States, other countries or both.

Other company, product, and service names may be trademarks or service marks of others.

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## Discretionary information

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### Feature availability matrix

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Order codes:

- I — Available on initial orders from the plant only
- M — Available on field upgrade (MES) orders only
- B — Available on both initial and field upgrade orders
- S — Supported for migration only and cannot be ordered

A complete list of features by model can be found in the IBM System i™ on-line Sales Manuals at

<http://www-306.ibm.com/common/ssi/OIX.wss>

	9	
	4	
	0	
	7	
	5	
	1	
	5	
Feature		Description
0003	M	Notify CSO After Install
0005	M	Bulk Order Indicator
0006	I	LPAR Restrict Build Process
0032	B	Modem
0040	B	Mirrored System Disk Level
0041	B	Device Parity Protection-All
0140	B	Logical Partitioning Specify
0142	B	Linux(TM) Partition Specify
0145	B	AIX(R) Partition Specify
0205	I	RISC-to-RISC Data Migration

0272 I Renovated by IBM  
 0275 B CSC Specify  
 0276 B CSC Specify  
 0277 B CSC Specify  
 0278 B CSC Specify  
 0279 B CSC Specify  
 0280 B CSC Specify  
 0281 B CSC Specify  
 0282 B CSC Specify  
 0290 B Ext Tape Attached via #5736  
 0308 B Mirrored System-IOA Level  
 0348 B V. 24/EIA232 20-Ft PCI Cable  
 0353 B V. 35 20-Ft PCI Cable  
 0356 B V. 36 20-Ft PCI Cable  
 0359 B X. 21 20-Ft PCI Cable  
 0367 B Operations Console PCI Cable  
 0373 I UPS Factory Integration  
 0374 I HMC Factory Integration  
 0375 I Display Factory Integration  
 0424 I Int Order-NDF Parts Allowed  
 0473 B Project Identify Code  
 0474 B Project Identify Code  
 0476 B Project Identify Code  
 0477 B Project Identify Code  
 0478 B Project Identify Code  
 0479 B Project Identify Code  
 0496 I Force i5/OS(TM) Preload  
 0532 B V5R4 OS, V5R4MO Machine Code  
 0551 B iSeries(TM) Rack  
 0555 B iSeries 25U Rack  
 0599 B Rack Filler Panel Kit  
 0600 B CCEP  
 0620 B Direct Attach-5700  
 0621 B Direct Attach-5701  
 0647 B PCI-X Disk/Tape Ctlr No IOP  
 0835 B #4327 Load Source Specify  
 0983 I Assembled in USA  
  
 1025 B Modem Cable -- U. S. /Canada  
  
 1311 M System Unique Identifier  
 1827 B Serial-UPS Conversion Cable  
 1897 B 73.4GB 15k rpm Disk Unit  
 2640 B DVD-ROM  
 2742 B PCI Two-Line WAN IOA  
 2793 B PCI 2-Line WAN w/Modem  
  
 2805 B PCI Quad Modem IOA  
  
 2844 B PCI IOP  
  
 2917 B English U/L DBCS  
  
 2924 B English  
  
 2958 B Universal Japanese  
  
 4327 B 70.56GB 15k rpm Disk Unit  
 4400 B 1GB DDR2 Main Storage  
 4474 B 2GB DDR2 Main Storage  
 4475 B 4GB DDR2 Main Storage  
 4746 B PCI Twinaxial Workstn IOA  
 4901 B 1W Server Feat 515 1x8327  
 4903 B 2W Server Feat 515 1x8330  
 5000 I Software Preload Required  
  
 5001 B Customer Solution Center  
  
 5002 I AS/400® CDSC - Rochester Mfg  
  
 5159 B 850 Watt Power Supply  
 5540 B Sys Console on Twinax WSC

5544 B Sys Console on OP Console  
 5550 B Sys Console On HMC  
  
 5552 B Sys Console on Thin Console  
  
 5553 B Sys Console-Ethernet No IOP  
 5570 B 5727 Cache + 2 70GB Disk Pkg  
 5571 B 5727 Cache + 6 70GB Disk Pkg  
 5592 B 4 Disk Slot Exp + Controller  
 5593 B 4 Disk Slot Exp + Controller  
 5700 B PCI 1Gbps Ethernet IOA  
 5701 B PCI 1Gbps Ethernet UTP IOA  
 5706 B PCI-X 1Gbps Ethernet-TX IOA  
 5707 B PCI-X 1Gbps Ethernet-SX IOA  
 5721 B PCI-X 10Gbps Ethernet-SR IOA  
 5722 B PCI-X 10Gbps Ethernet-LR IOA  
 5727 B Integrated Cache -- 40MB  
 5736 B PCI-X Disk/Tape Ctlr w/IOP  
 5753 B 30GB 1/4-Inch Cartridge Tape  
 5775 B PCI-X Disk/Tape Ctlr-No IOP  
 5783 B PCI-X iSCSI HBA Copper  
 5784 B PCI-X iSCSI HBA Fiber  
 6010 B 515 Express Configuration 1  
 6011 B 515 Express Configuration 2  
 6018 B 515 Base Product Config 1  
 6021 B 515 Express Configuration 3  
 6028 B 515 Base Product Config 2  
 6068 B Opt Front Door for 1.8m Rack  
 6246 B 1.8m Rack Trim Kit  
 6258 B 36GB 4mm Tape Unit  
 6458 B 14-Ft Int 250V/10A Pwr Cd  
  
 6460 B 14-Ft 125V/15A Power Cord  
 6469 B 14-Ft 250V/15A Power Cord  
 6470 B 6-Ft 125V/15A Power Cord  
  
 6487 B 6-Ft 250V/15A Power Cord  
  
 6492 B 14-Ft 1PH/48-60A Pwr Cord  
  
 6497 B 6-Ft 250V/15A Power Cord  
  
 6498 B 6-Ft 250V/15A Power Cord  
  
 6580 B Optional Rack Security Kit  
 6585 B DASD Locking Kit  
 6586 B Modem Tray for 19-Inch Rack  
 6587 B Rear Cover  
 6598 B Disk Slot Filler (Qty 4)  
  
 6654 B 14-Ft 1PH/24-30A Pwr Cord  
 6655 B 14-Ft 1PH/24-30A WR Pwr Cord  
  
 6671 B 9Ft IEC 320 C13/14 PDU Cord  
 6672 B 5Ft IEC 320 C13/14 PDU Cord  
  
 6800 B PCI 1Gbps Ethernet IOA  
 6801 B PCI 1Gbps Ethernet UTP IOA  
 6803 B PCI WAN for ECS  
  
 7181 I Easy-Access Front Cover  
 7182 B Rack Mount  
 7188 B Power Distribution Unit  
 7198 B Adjustable Depth Rack Rails  
 7885 B Deskside  
 7966 B Adv Power Virtualization  
 8327 B 1.9GHz Processor  
 8330 B 1.9GHz Proc 0/2-Way  
 8410 B Base Proc Activation  
 8428 B Base Proc Activation  
 8753 I 30GB 1/4-Inch Cartridge Tape  
 9258 I 36GB 4mm Tape Unit  
 9493 B Base PCI WAN for ECS

9510	I	Base Integrated Cache – 40MB
9540	I	Base DVD-ROM
9548	I	Base 1GB Main Storage
9549	I	Base 2GB Main Storage
9613	I	Base 70GB 15k rpm Disk Unit
9653	I	Base 30GB 1/4-Inch Cart Tape
9793	B	Base PCI 2-Line WAN w/Modem
9844	I	Base PCI IOP

## Feature descriptions

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Following are the descriptions, in numeric order, for all features in this announcement.

Attributes, as defined in the descriptions, state the interaction of requirements among features.

Minimums and maximums are the absolute limits for a single feature without regard to interaction with other features. The maximum valid quantity for MES orders may be different than for initial orders. The maximums in the following list refer to the largest quantity of these two possibilities.

The order type defines whether a feature is orderable only on initial orders, only on MES orders, on both initial and MES orders, or if a feature is supported on a model only as a result of a model conversion.

**(#0005) — Bulk Order Indicator:** This specify code is used by manufacturing applications to determine the correct number of additional hardware items (i.e., wrist straps) to include on a bulk MES order.

- For 9407-515: (#0005)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 0)
  - OS level required: i5/OS V4R5, or later, AIX 5L™ for POWER™ V5.2 for IBM eServer®, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: MES
  - CSU: Yes

**(#0006) — LPAR Restrict Build Process:** Added to an initial order system when multiple i5/OS partitions (#0140) are requested. This code instructs manufacturing to only load SLIC on the minimum number of DASD files (i.e., do not spread across all available DASD units). Mutually exclusive with #5000 SW Preload and with #0205 — RISC-to-RISC Data Migration.

- For 9407-515: (#0006)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V4R4, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#0032) — Modem:** This specify is required if an external high speed modem is to be shipped with the system. The exact machine type-model of the modem shipped will vary based on what is currently stocked in manufacturing.

- For 9407-515: (#0032)
  - Minimum required: 0
  - Maximum allowed: 12 (Initial order maximum: 12)
  - OS level required: i5/OS V2R1, or later
  - Initial Order/MES/Both/Supported: Both

- CSU: Yes

**(#0040) — Mirrored System Disk Level:** This code indicates the level of disk protection desired and helps ensure that adequate hardware is in the final configuration.

**For new systems:** Causes the marketing configurator to error if sufficient disk units are not ordered to support **device-level** mirrored protection. #0040 causes all disk units to be placed into configurations capable of implementing mirrored pairs.

**For upgrade orders:** #0040 will cause the marketing configurator to error if sufficient disk units are not available to provide mirroring capability.

It is the customer's responsibility to start mirroring on their system.

Mirrored system disk level protection requires all disk units to be placed into mirrored pairs and mirroring be started. The load source must be controlled by the first disk controller on the first system bus and must be mirrored to a like disk unit also attached to the first disk controller on the first system bus. Refer to the iSeries Information Center for important Mirrored Protection implementation details.

<http://publib.boulder.ibm.com/series/>

Logically partitioned systems (LPAR) require additional planning

The minimum number of disks allowed on system is two.

- Attributes provided: Device-level mirrored protection
- Attributes required: Minimum of two (2) disk units
- For 9407-515: (#0040)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V2R1, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0041) — Device Parity Protection-All:** This code indicates the level of disk protection desired and helps ensure that adequate hardware is in the final configuration.

This is the default specify code for data protection capability.

**For new systems:** Causes the marketing configurator to error if a disk unit or adapter is ordered that is not capable of implementing RAID protection. #0041 causes all internal disk units to be placed into configurations capable of implementing RAID arrays using a RAID-capable disk controller.

**For upgrade orders:** #0041 will cause the order to replace adapters that are not RAID-capable with RAID-capable adapters. The marketing configurator will error if there are not enough disk units to support a minimum RAID configuration.

It is the customer's responsibility to start RAID on their system.

Device parity protection requires all disk units to be placed in sets large enough to turn on RAID protection, as well as be connected to a RAID-capable adapter. The rules for RAID can be found in the disk controller descriptions.

- Attributes provided: RAID Data Protection
- Attributes required: RAID-capable disk unit controller
- For 9407-515: (#0041)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V4R5, or later
  - Initial Order/MES/Both/Supported: Both

- CSU: Yes

**(#0140) — Logical Partitioning Specify:** #0140 is used to specify that this system will be logically partitioned. A quantity of one #0140 is required on the order/system for each logical partition running OS/400®.

Initial system orders and model upgrade orders containing this specify will ship without RAID or mirroring enabled.

- For 9407-515: (#0140)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0142) — Linux Partition Specify:** #0142 is used to specify that this system will be logically partitioned with a Linux partition. A quantity of one #0142 needs to be on the order/system for each Linux partition required.

Direct-attach features are not allowed in OS/400 partitions.

There are no minimum number of Linux direct-attached features required per Linux partition. A Linux partition can exist without any direct-attach features in it. In this case, the system will provide virtual I/O for those Linux partitions that contain no direct-attach features.

- Attributes provided: One Linux Partition
- Attributes required: #0140 Logical Partitioning Specify
- For 9407-515: (#0142)
  - Minimum required: 0
  - Maximum allowed: 19 (Initial order maximum: 19)
  - OS level required: Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0145) — AIX Partition Specify:** #0145 is used to specify that this system will be logically partitioned with an AIX partition. A quantity of one #0145 needs to be on the order/inventory records for each AIX partition required.

AIX offered/supported features are only allowed within an AIX partition. AIX offered/supported features are not allowed in i5/OS partitions.

There are no minimum number of AIX direct-attached features required per AIX partition. An AIX partition can exist without any AIX features in it. In this case, the system will provide virtual I/O for those AIX partitions that contain no AIX features.

- Attributes provided: AIX Secondary Partition
- Attributes required: Logical Partitioning Specify (#0140)
- For 9407-515: (#0145)
  - Minimum required: 0
  - Maximum allowed: 19 (Initial order maximum: 19)
  - OS level required: AIX 5L for POWER V5.2 for IBM eServer, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0205) — RISC-to-RISC Data Migration:** Used on initial orders to designate that the new server will replace (not upgrade) an installed iSeries model.

When #0205 is on the order, manufacturing will only load SLIC and up through QSYS of OS/400. This will facilitate migrating some of the OS/400 information from the installed system. In addition to the new server, enough DASD must be ordered to hold all the data from the current model, as well as the required software on the new server.

Specify code #5000, SW Preload Required, is mutually exclusive with #0205.

The migration process requires that the installed model be at the same version and release level of OS/400 and other licensed programs as the new server. Financial considerations of upgrades to the installed software should be reviewed as part of the migration planning.

More information, and an updated iSeries System Upgrade and Data Migration Road Map (RISC-RISC) are available at:

<http://publib.boulder.ibm.com/series/>

Select V5R4, then Site Map, and then Installation, upgrades, and migration.

- For 9407-515: (#0205)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#0272) — Renovated by IBM:** Renovated by IBM is a specify code used to indicate that the system/MES will be built from new or refurbished parts.

- For 9407-515: (#0272)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#0275) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided. Having #0275 on the order, will cause the order content to be internally routed to the CSC build area in building 114 (Rochester).

- Attributes provided: Order content routing to CSC build area in building 114.
- Attributes required: None
- For 9407-515: (#0275)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0276) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0276)
  - Minimum required: 0

- Maximum allowed: 1PO (Initial order maximum: 1)
- OS level required: i5/OS V5R3, or later
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#0277) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0277)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0278) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0278)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0279) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0279)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0280) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0280)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0281) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0281)
  - Minimum required: 0

- Maximum allowed: 1PO (Initial order maximum: 1)
- OS level required: i5/OS V5R3, or later
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#0282) — CSC Specify:** For exclusive use by the Rochester Custom Solution Center. Marketing configurator support is not required/provided.

- For 9407-515: (#0282)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0290) — Ext Tape Attached via #5736:** Each #0290 is used to indicate one external port of a #5736 or #5775 will be used to control an external tape device. Note #5735 and #5775 are physically the same adapter card, but have different feature numbers to indicate to IBM configuration tools than an IOP is or is not being used in the configuration.

- Attributes provided: Placement code for IBM Configurator Tools
- Attributes required: #5736 PCI-X Disk/Tape Controller with IOP or #5775 PCI-X Disk/Tape Controller — no IOP
- For 9407-515: (#0290)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 0)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0308) — Mirrored System-IOA Level:** This specify code indicates the level of disk protection desired and helps ensure that adequate hardware is in the final configuration.

For new systems, the marketing configurator will show an error if sufficient disk units and disk controllers are not included on the order to support IOA-level mirroring protection. #0308 causes all disk units to be placed into configurations capable of IOA-level mirroring. Each disk unit and its mirrored pair must be on a different disk controller.

Note that the load source disk unit in a new, preloaded system will be device-level mirrored (same protection as provided with feature #0040). This means that the load source is controlled by the first disk unit controller on the first system bus, and will be mirrored with a like disk unit that is also attached to the same first disk controller on the first system bus.

For upgrade orders, #0308 will cause the marketing configurator to show an error if sufficient disk units and disk controllers are not available to provide the capability to enable IOA-level mirrored protection for all DASD.

It is the client's responsibility to start mirroring on their system.

- Attributes provided: IOA level system mirroring
- Attributes required: A minimum of two disk controllers and a even number of disk units (with a minimum of four disk units on a system).
- For 9407-515: (#0308)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 0)

- OS level required: N/A
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#0348) — V.24/EIA232 20-Ft PCI Cable:** This feature provides a 20-foot WAN PCI cable that supports a V.24 or a EIA232 electrical connection interface.

- For 9407-515: (#0348)
  - Minimum required: 0
  - Maximum allowed: 12 (Initial order maximum: 12)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0353) — V.35 20-Ft PCI Cable:** This feature provides a 20-foot WAN PCI cable that supports a V.35 electrical connection interface.

- For 9407-515: (#0353)
  - Minimum required: 0
  - Maximum allowed: 12 (Initial order maximum: 12)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0356) — V.36 20-Ft PCI Cable:** This feature provides a 20-foot WAN PCI cable that supports a V.36 electrical connection interface.

- For 9407-515: (#0356)
  - Minimum required: 0
  - Maximum allowed: 12 (Initial order maximum: 12)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0359) — X.21 20-Ft PCI Cable:** This feature provides a 20-foot WAN PCI cable that supports a X.21 electrical connection interface.

- For 9407-515: (#0359)
  - Minimum required: 0
  - Maximum allowed: 12 (Initial order maximum: 12)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0367) — Operations Console PCI Cable:** A #0367 requires one RVX port (communications port, not modem port). A customer can select a #0367 for each i5/OS partition. There is a max of one #0367 per card. If a card has two RVX ports, a #0367 can connect to one port and the other port can be used for other comm support. Features supporting the #0367 cable are #2742, #2793, #2794, #4745, #9771, #9793, #9794. If a system has #5544, then at a minimum, one #0367 is required.

This feature ships a PCI card compatible Operations Console cable. This cable ships with a 25

pin to 9 pin adapter.

- For 9407-515: (#0367)
  - Minimum required: 0
  - Maximum allowed: 6 (Initial order maximum: 6)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0373) — UPS Factory Integration:** Used in manufacturing to ensure that a UPS ordered from IBM under a separate machine type/model, is associated with the system order, and is shipped concurrently.

Manufacturing will not ship the system order if a machine type-model UPS has not also been ordered.

- Attributes provided: None
- Attributes required: Ordered machine type-model UPS.
- For 9407-515: (#0373)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#0374) — HMC Factory Integration:** Used in manufacturing to ensure that an HMC ordered from IBM under a separate machine type/model, is associated with the system order and is shipped concurrently.

Manufacturing will not ship the system order if a machine type/ model HMC has not also been ordered.

- Attributes provided: None
- Attributes required: Ordered machine type-model HMC.
- For 9407-515: (#0374)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#0375) — Display Factory Integration:** Used in manufacturing to ensure that a display ordered from IBM under a separate machine type/model, is associated with the system order, and is shipped concurrently.

Manufacturing will not ship the system order if a machine type/ model display has not also been ordered.

- Attributes provided: None
- Attributes required: Ordered machine type-model display.
- For 9407-515: (#0375)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)

- OS level required: N/A
- Initial Order/MES/Both/Supported: Initial
- CSU: N/A

**(#0473) — Project Identify Code** PowerNet code added to orders driven from PowerNet activities to help track the orders.

- For 9407-515: (#0473)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: None
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0496) — Force i5/OS Preload:** Preloads i5/OS on a new server, even though partitioning has been specified. #0496 forces the preload of a single i5/OS partition when Linux or AIX 5L partitions with virtual storage have been configured. This feature will result in i5/OS being preloaded on all the disk drives in the ordered configuration. Do not use this feature if the Linux or AIX 5L partition has dedicated disk controllers and drives included in the ordered configuration.

#0496 is mutually exclusive with #0006.

- Attributes provided: i5/OS Preload
- Attributes required: iSeries Server
- For 9407-515: (#0496)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#0532) — V5R4 OS, V5R4M0 Machine Code:** This specify code is used to indicate what release of i5/OS will be used on the system. For an LPAR system, this specify indicates what release of i5/OS will be used in the system's primary partition. V5R4 i5/OS with V5R4M0 machine code requires a minimum i5/ OS load source size of 17GB.

- For 9407-515: (#0532)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0551) — iSeries Rack:** Provides a 19 inch, 1.8 meter high rack with 36 EIA units of total space for installing rack mounted CECs and/or expansion units. One of the following features are required on the #0551:

- #6068 — Optional Front Door for 1.8m Rack
- #6246 — 1.8m Rack Trim Kit
- #6248 — 1.8m Rack Acoustic Doors

The following features are also orderable on the #0551:

- #0599 — Rack Filler Panel Kit
- #6580 — Optional Rack Security Kit
- #7840 — Side-By-Side for 1.8m Racks
- #7841 — Ruggedize Rack Kit

The #0551 can support up to eight power distribution units (PDU), four mounted vertically and four mounted horizontally. Each PDU mounted horizontally takes up 1 EIA of rack space. The following PDUs are supported:

- #5160 — Power Distribution Unit 1 Phase NEMA (6 sockets) (supported, not orderable)
- #5161 — Power Distribution Unit 1 Phase IEC (6 sockets) (supported, not orderable)
- #5162 — Power Distribution Unit 2 of 3 Phase (6 sockets) (supported, not orderable)
- #5163 — Power Distribution Unit — 3 Phase (6 sockets) (supported, not orderable)
- #7188 — Power Distribution Unit (12 sockets)

All racked units plugging into a PDU will require a PDU line cord with a C14 plug.

- Attributes provided: 19 inch, 1.8M, 36 EIA Rack
- Attributes required: #6068 or #6246 or #6248.
- For 9407-515: (#0551)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0555) — iSeries 25U Rack:** Provides a 19-inch, 1.3 meter (49-inch) high rack with 25 EIA units of total space for installing rack-mounted CECs and/or expansion units. The #0555 includes lockable front and rear doors. Filler panels and perforated doors are included to help provide proper airflow and cooling.

The following feature is orderable on the #0555:

- #0599 — Rack Filler Panel Kit (if extra filler panels are required)

The #0555 supports up to 12 Power Distribution Units (PDU) that are mounted horizontally. Each PDU takes up one EIA of rack space. The following PDUs are supported:

- #5160 — Power Distribution Unit 1 Phase NEMA (6 sockets) (supported, not orderable)
- #5161 — Power Distribution Unit 1 Phase IEC (6 sockets) (supported, not orderable)
- #5162 — Power Distribution Unit 2 of 3 Phase (6 sockets) (supported, not orderable)
- #5163 — Power Distribution Unit — 3 Phase (6 sockets) (supported, not orderable)
- #7188 — Power Distribution Unit (12 sockets) (orderable)

All racked units plugging into a PDU will require a PDU line cord with a C14 plug.

- Attributes provided: 19 inch, 1.3M, 25 EIA Rack
- Attributes required: None
- For 9407-515: (#0555)
  - Minimum required: 0
  - Maximum allowed: No max (Initial order maximum: 0)

- OS level required: N/A
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#0599) — Rack Filler Panel Kit:** Provides rack filler panels for IBM 19-inch iSeries racks. The #0599 provides three 1-EIA -unit filler panels and one 3-EIA-unit filler panel. These are snap-on panels.

iSeries racks are shipped from IBM with filler panels for the empty positions. The #0599 provides spare/additional filler panels that may be required due to removal or repositioning of equipment in a rack. Filler panels help maintain proper airflow and cooling within a rack.

- Attributes provided: Snap on rack filler panels
- Attributes required: iSeries 19-inch rack
- For 9407-515: (#0599)
  - Minimum required: 0
  - Maximum allowed: No max (Initial order maximum: 250)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0600) — CCEP:** This process allows the shipping of an order prior to the scheduled ship date. #0600 will alert Rochester manufacturing to ship order prior to scheduled ship date. This is an exception process. Nothing will be announced. #0600 will be added to each order manually.

- For 9407-515: (#0600)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 1)
  - OS level required: i5/OS V3R0.5, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0620) — Direct Attach-5700:** #0620 is ordered when the function of a #5700 IOA is required but the card will be controlled by a non-OS/400 operating system.

Cards controlled by a non-OS/400 operating system do not use/ require PCI IOPs. Direct attach cards are supported only in a non-OS/ 400 partition.

#0620, #5700 and #6800 are physically the same adapter card but have different feature numbers to indicate to IBM configurator tools that an IOP is or is not being used in the configuration.

Prerequisites:

- #0140 Logical Partitioning Specify.
- #0142 Linux Partition Specify or #0145 AIX Partition Specify
- Attributes provided: #5700 controlled by AIX or Linux Operating System
- Attributes required: #0140 and (#0142 or #0145)
- For 9407-515: (#0620)
  - Minimum required: 0
  - Maximum allowed: 5 (Initial order maximum: 5)
  - OS level required: AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or

later

- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#0621) — Direct Attach-5701:** #0621 is ordered when the function of a #5701 IOA is required but the card will be controlled by a non-OS/400 operating system.

Cards controlled by a non-OS/400 operating system do not use/ require PCI IOPs. Direct attach cards are supported only in a non-OS/ 400 partition.

#0621, #5701 and #6801 are physically the same adapter card but have different feature numbers to indicate to IBM configurator tools that an IOP is or is not being used in the configuration.

Prerequisites:

- #0140 Logical Partitioning Specify.
- #0142 Linux Partition Specify or #0145 AIX Partition Specify
  
- Attributes provided: #5701 controlled by AIX or Linux Operating System
- Attributes required: #0140 and (#0142 or #0145)
- For 9407-515: (#0621)
  - Minimum required: 0
  - Maximum allowed: 5 (Initial order maximum: 5)
  - OS level required: AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0647) — PCI-X Disk/Tape Ctlr No IOP:** Provides a PCI-X Disk/Tape SCSI Controller with zero write cache and without RAID support. A maximum of six disk drives are supported on the #0647. Removable media devices (tape, optical libraries, CD-ROM, DVD-ROM, and DVD-RAM) are also supported on the #0647.

The #0647 has two U320 buses each with a bus data rate of up to 320MBs. Each SCSI bus can be either internal (using an internal port) or external (using an external port), but not both. There are four physical ports on the #0647, two internal and two external.

Internal devices connect to the internal ports (1 or 2). External devices connect to the external ports (1 or 2) and use an LVD (Low Voltage Differential) interface and VHDCI connectors. A #1850 VHDCI to P Converter Cable is available to connect to external devices with type P connectors.

#0647, #5736, #5766 and #5775 are physically the same adapter card but have different feature numbers to indicate to IBM configurator tools how the card is being used. #0647 indicates that the card is dedicated to an AIX 5L or Linux partition and an IOP is not being used.

- Attributes provided: Two Ultra320 SCSI VHDCI ports that may be either internal or external but not both.
- Attributes required: One available 3.3 volt PCI or PCI-X slot
- For 9407-515: (#0647)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 0)
  - OS level required:
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0835) — #4327 Load Source Specify:** This specify code indicates that a #4327 Disk Unit is being used as the Load Source.

A load source specify code is required on each new or model upgrade order into 5XX models. These specifies can be changed at any time.

- For 9407-515: (#0835)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R2, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#0983) — Assembled in USA:** This specify code indicates that the product was assembled in a manufacturing plant in the USA.

- For 9407-515: (#0983)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#1025) — Modem Cable — U.S./Canada:** U.S./Canada modem cable use on/with #0609, #0614, #0616, #2772, #2793, #2805, #9793 adapters. Maximum of two per adapter.

- For 9407-515: (#1025)
  - Minimum required: 0
  - Maximum allowed: 12 (Initial order maximum: 12)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#1311) — System Unique Identifier:** After 255 scratch in stalls, the system ID counter wraps and a new system ID must be created. Feature #1311 can be ordered as an MES to regenerate a customer's system ID.

- For 9407-515: (#1311)
  - Minimum required: 0
  - Maximum allowed: 1PO (Initial order maximum: 0)
  - OS level required: i5/OS V3R6, or later
  - Initial Order/MES/Both/Supported: MES
  - CSU: Yes

**(#1827) — Serial-UPS Conversion Cable:** #1827 is a 0.14M adapter cable with a female 9-pin D-shell connector on each end. #1827 converts the CEC serial port 2 to a SPCN/UPS port, providing an additional port for UPS control.

The mode of the port cannot be changed during runtime, a re-IPL is required to change the mode once the adapter cable is connected or disconnected.

- Attributes provided: One additional SPCN/UPS port
- Attributes required: CEC serial port 2

- For 9407-515: (#1827)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#1897) — 73.4GB 15k rpm Disk Unit:** The #1897 73.4GB 15,000 RPM Ultra320 SCSI Disk Drive Assembly provides 73.4 GB of storage capacity and supports the industry standard Ultra320 SCSI interface speed of up to 320 MBps.

Characteristics:

- Form Factor: 3.5-inch, 1-inch (25 mm) high
- Cable included: No
- External Interface: Ultra320 SCSI (16-bit, Low Voltage Differential)
- Attachment Industry Spec: SCSI U320
- Average Seek Time: 3.7ms (based on four READS to one WRITE)
- Average Latency: 2ms
- Rotational Speed: 15,000 RPM
- Maximum Data Transfer Rate: 83 MBps

Limitation: This disk drive requires attachment to a supported Ultra320 SCSI Adapter in a system that supports an Ultra320 SCSI cable/backplane in order for the drive to run at 320 MBps. Also, any and all other SCSI devices on the same SCSI bus must also be Ultra2, Ultra3, or Ultra320 SCSI device(s) in order for this disk drive to run at 320 MBps.

- Attributes provided: 73.4 GB of disk storage mounted in a carrier.
- Attributes required: One disk drive bay.
- For 9407-515: (#1897)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 4)
  - OS level required: AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2640) — DVD-ROM:** The 8X/24X(max) Slimline IDE DVD-ROM Drive is an internal tray loading DVD-ROM drive providing up to 3600KB/sec (CD-ROM) and 10.3MB/ sec (DVD-ROM) data transfer rates.

Characteristics:

- Media Data Transfer Rate: CD-ROM=3600 KB/sec (max), DVD-ROM=10.3MB/sec (max)
- Interface: IDE/ATAPI
- Avg. Random Access Time: CD-ROM=95ms(typical), DVD-ROM=150ms (typical)
- Buffer Memory: 256KB
- Media capacity: CD-ROM=650MB, DVD-ROM= 4.7 GB(single sided)/9.4 GB(double-sided)
- Multisession capable (Reads CD/R & CD-R/W media)
- 12.7mm Slimline form factor

- Operates in either vertical or horizontal positions
- Interface supports standard and extended XA formats
- Loading tray supports 12cm and 8cm disks

Limitations: DVD video is not supported.

- Attributes provided: 8X/24X(max) IDE DVD-ROM Drive
- Attributes required: One Slimline media bay
- For 9407-515: (#2640)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later, AIX 5L for POWER V5.2 for IBM eServer, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2742) — PCI Two-Line WAN IOA:** #2742 is a WAN IOA that supports up to two multiple protocol communications (RVX) ports when one or two of the following cables are attached:

- #0348 — V.24/EIA232 20-Ft PCI Cable
- #0349 — V.24/EIA232 50-Ft PCI Cable (support only, not orderable)
- #0353 — V.35 20-Ft PCI Cable
- #0354 — V.35 50-Ft PCI Cable
- #0355 — V.35 80-Ft PCI Cable (support only, not orderable)
- #0356 — V.36 20-Ft PCI Cable
- #0358 — V.36 80-Ft PCI Cable (support only, not orderable)
- #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 is utilized.

When #2742 is selected to support ECS, one of following cables must be specified:

- #0348 V.24/EIA232 20-Ft PCI Cable
- #0349 V.24/EIA232 50-Ft PCI Cable (support only, not orderable)
- #0365 V.24/EIA232 80-Ft PCI Cable

#2742 does not support remote power-on.

- Attributes provided: two RVX comm ports
- Attributes required: one 3v PCI/PCI-X slot
- For 9407-515: (#2742)
  - Minimum required: 0
  - Maximum allowed: 3 (Initial order maximum: 3)

- OS level required: i5/OS V5R4, or later
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#2793) — PCI 2-Line WAN w/Modem:** The #2793 is a 2-line/port WAN w/modem adapter. This feature is the non-CIM (Complex Impedance Matching) version 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, 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, including synchronous operations.

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 — UK
- #1018 Modem Cable — Iceland/Sweden
- #1020 Modem Cable — HK/NZ
- #1021 Modem Cable — Fin/Nor
- #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 PCI Cable
- #0353 — V.35 20-Ft PCI Cable
- #0356 — V.36 20-Ft PCI Cable
- #0359 — X.21 20-Ft PCI Cable
- #0367 — Operations Console PCI 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 is utilized.

ECS is supported from both the modem port, and the RVX port. The following cable is required to support ECS from the RVX port:

- #0348 — V.24/EIA232 20-Ft PCI Cable

The #2793 does not support the remote ring indicate function.

- Attributes provided: One RVX port and one integrated modem port
- Attributes required: One PCI slot (3 volt)

- For 9407-515: (#2793)
  - Minimum required: 0
  - Maximum allowed: 3 (Initial order maximum: 3)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2805) — PCI Quad Modem IOA:** The #2805 is a four-line WAN modem adapter, with four RJ-11 ports, supports V.92 56K Async SLIP/PPP and V.34 Fax applications at data rates up to 33.6K via integrated modems. Connection to the V.92 ports is via telephone cable. The V.92 functions offer increased upload throughput, improved V.44 data compression, and shortened modem synchronization periods.

The call waiting and modem on hold functions associated with V.92 are not supported.

Remote power on via ring-indicator and SDLC are not supported.

#2805 is non-CIM (Complex Impedance Matching)

A minimum of one modem cable must be ordered for each #2805. All modem cables installed on a system must be the same feature number.

- #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 — UK
- #1018 Modem Cable — Iceland/Sweden
- #1020 Modem Cable — HK/NZ
- #1021 Modem Cable — Fin/Nor
- #1022 Modem Cable — Netherlands
- #1023 Modem Cable — Swiss
- #1024 Modem Cable — Denmark
- #1025 Modem Cable — U.S/Canada

- Attributes provided: four WAN ports
- Attributes required: one PCI slot
- For 9407-515: (#2805)
  - Minimum required: 0
  - Maximum allowed: 3 (Initial order maximum: 3)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2844) — PCI IOP:** #2844 is a PCI I/O processor that drives PCI IOA adapters in the system unit and in HSL attached PCI or PCI-X I/O expansion towers/ units.

A #2844 can drive a maximum of four IOAs, subject to configuration restrictions.

- Attributes provided: Support for up to four PCI adapters
- Attributes required: One 3V PCI slot (either short or long)
- For 9407-515: (#2844)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2917) — English U/L DBCS:** All systems require a #29XX specify code. A 29XX code is required on all model upgrades, even if one is already on the records.

Machine history at the IBM plant is used to ship the proper language when the 29XX code is not on an MES order.

These features have country-specific usage.

- For 9407-515: (#2917)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V3R7, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2924) — English:** All systems require a #29XX specify code. A 29XX code is required on all model upgrades, even if one is already on the records.

Machine history at the IBM plant is used to ship the proper language when the 29XX code is not on an MES order.

These features have country-specific usage.

- For 9407-515: (#2924)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V1R1, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#2958) — Universal Japanese:** All systems require a #29XX specify code. A 29XX code is required on all model upgrades, even if one is already on the records.

Machine history at the IBM plant is used to ship the proper language when the 29XX code is not on an MES order.

These features have country-specific usage.

- For 9407-515: (#2958)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#4327) — 70.56GB 15k rpm Disk Unit:** #4327 is a 15k rpm disk unit with 70.56GB capacity and an Ultra320 SCSI interface.

- Attributes provided: 70.56GB disk unit
- Attributes required: disk unit slot and a disk unit controller
- For 9407-515: (#4327)
  - Minimum required: 0
  - Maximum allowed: 8 (Initial order maximum: 8)
  - OS level required: i5/OS V5R4, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#4400) — 1GB DDR2 Main Storage:** Consists of two 512MB DDR2 DIMMs for a total of 1GB of main storage.

- Attributes provided: 1GB of main storage
- Attributes required: 2 DIMM slots
- For 9407-515: (#4400)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 0)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** Used only on models 515, 520, or 525 with 1.9GHz processor (#8325, #8327, #8330).

**(#4474) — 2GB DDR2 Main Storage:** Consists of two 1GB DDR2 DIMMs for a total of 2GB of main storage.

- Attributes provided: 2GB of main storage
- Attributes required: 2 DIMM slots
- For 9407-515: (#4474)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 0)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** Used only on models 515, 520, or 525 with 1.9GHz processor (#8325, #8327, #8330).

**(#4475) — 4GB DDR2 Main Storage:** #4475 consists of two 2GB DDR2 DIMMs for a total of 4GB of main storage.

- Attributes provided: 4GB of main storage
- Attributes required: Two DDR2 DIMM slots
- For 9407-515: (#4475)
  - Minimum required: 0

- Maximum allowed: 4 (Initial order maximum: 4)
- OS level required: i5/OS V5R4, or later
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#4746) — PCI Twinaxial Workstn IOA:** The #4746 provides support for up to 40 twinaxial displays and printers. A 20-ft cable with an 8-port expansion (breakout) box is included with this adapter. Each expansion port supports seven attached devices, allowing for 56 total attached devices, of which only 40 can be active.

- Attributes provided: Attachment of twinaxial devices.
- Attributes required: One PCI slot (3V or 5V)
- For 9407-515: (#4746)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#4901) — 1W Server Feat 515 1x8327** This server feature denotes the use of one #8327 1-way processor feature on the model 515.

- Attributes provided: 515 1-way server feature
- Attributes required: Server feature #4901 and processor feature #8327
- For 9407-515: (#4901)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#4903) — 2W Server Feat 515 1x8330** This server feature denotes the use of one #8330 1/2 way processor feature on the model 515.

- Attributes provided: 515 1/2 way server feature
- Attributes required: Server feature #4903 and processor feature #8330
- For 9407-515: (#4903)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5000) — Software Preload Required:** Indicates that preloaded software and/or consolidated I/O is shipped with the initial order. A maximum of one (#5000) is supported. This feature has country-specific usage.

- For 9407-515: (#5000)
  - Minimum required: 0

- Maximum allowed: 1 (Initial order maximum: 1)
- OS level required: i5/OS V5R3, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
- Initial Order/MES/Both/Supported: Initial
- CSU: N/A

**(#5001) — Customer Solution Center:** Indicates that a machine is to be routed to the Customer Solution Center at time of manufacture. Order content is routed to the CSC in Bldg. 673. Multiple #5001s are allowed on the records. This feature has country-specific usage.

- Attributes provided: Order content is routed to CSC in Bldg 673 (Rochester).
- Attributes required: None
- For 9407-515: (#5001)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V2R1, or later, AIX 5L for POWER V5.2 for IBM eserver, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5002) — AS/400 CDSC — Rochester Mfg:** Indicates that machine is to be routed to the CDSC. This feature has country-specific usage.

- For 9407-515: (#5002)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V2R2, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#5159) — 850 Watt Power Supply:** Provides an optional 850W power supply, which installs in a 515, 520, or 525 system unit with processor #8325, #8327, or #8330 and provides redundant power.

The #5159 requires an additional CEC line cord feature to be ordered.

- Attributes provided: Redundant power supply.
- Attributes required: Additional CEC line cord
- For 9407-515: (#5159)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 0)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5540) — Sys Console on Twinax WSC:** When #5540 is on the order, the system console is

driven by a twinaxial adapter. #4746 PCI Twinaxial Workstation IOA is added to the order:

- Attributes provided: System Console on a Twinaxial Connection
- Attributes required: #4746 PCI Twinaxial WorkStation IOA
- For 9407-515: (#5540)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5544) — Sys Console on OP Console:** When #5544 is on the order, the system console is driven by an IOP-based WAN adapter. A #0367, Operations Console PCI cable is required on the system/order.

- Attributes provided: System Console on a WAN Connection
- Attributes required: WAN IOA, #0367 Operations Console PCI Cable, IOP
- For 9407-515: (#5544)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5550) — Sys Console On HMC:** With #5550, system console function is driven by the Hardware Management Console (HMC) connected to the system. The HMC is required if the following functions are desired/selected for the system:

- Partitioning
- Capacity Upgrade on Demand
  
- Attributes provided: System Console on HMC
- Attributes required: HMC
- For 9407-515: (#5550)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5552) — Sys Console on Thin Console:** This specify indicates the use of a thin console for the system console. The thin console is attached to an Ethernet port of the system unit's service processor and does not take away an Ethernet port from i5/OS.

- Attributes provided: System Console connection through the service processor Ethernet port
- Attributes required: service processor Ethernet port
- For 9407-515: (#5552)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later

- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#5553) — Sys Console-Ethernet No IOP:** This specify indicates the use of an embedded CEC LAN port for the system console connection using Operations Console (LAN).

- Attributes provided: System console connection through an embedded CEC LAN port.
- Attributes required: Embedded CEC LAN port.
- For 9407-515: (#5553)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5570) — 5727 Cache + 2 70GB Disk Pkg:** This package provides one #5727 Integrated Cache — 40MB and two #4327 15k rpm 70.56GB Disk Units.

#5727 provides 40MB write cache for the imbedded disk controller in the 515, 520, 525 and also enables RAID-5 capability. The 5727 is installed in its own specific internal slot of the system unit and does not require a PCI slot.

On IBM ordering, shipping, and inventory documentation, the component features specifically for the #5727 and #4327 disk units will not be shown. The chargeable #5570 feature number will be shown and will carry the price and warranty for this package.

- Attributes provided: 40MB write cache, RAID-5 data protection for system unit disk drives, and two 70GB disk drives
- Attributes required: Unused write cache slot in the system unit and two unused disk slots.
- For 9407-515: (#5570)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5571) — 5727 Cache + 6 70GB Disk Pkg:** This package provides one #5727 Integrated Cache — 40MB and six #4327 15k rpm 70.56GB Disk Units.

The #5727 provides 40MB write cache for the imbedded disk controller in the 515, 520, 525 and also enables RAID-5 capability. The 5727 is installed in its own specific internal slot of the system unit and does not require a PCI slot.

On IBM ordering, shipping, and inventory documentation, the component features specifically for the #5727 and #4327 disk units will not be shown. The chargeable #5570 feature number will be shown and will carry the price and warranty for this package.

- Attributes provided: 40MB write cache, RAID-5 data protection for system unit disk drives, and six 70GB disk drives
- Attributes required: Unused write cache slot in the system unit and two unused disk slots. The model 515 has 5592/5593 as a prerequisite.
- For 9407-515: (#5571)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later

- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#5592) — 4 Disk Slot Exp + Controller:** This feature provides a disk backplane, which enables the second set of four disk slots in a model 515 and provides a disk controller to run these four disk slots. The disk controller is plugged into either the C4 or the C6 PCI slot of the 515 system unit. The disk controller has 90MB write cache and can provide RAID protection for the disk drives. Mirroring protection is provided via i5/OS. A minimum of three disk drives are required for RAID-5, providing protection against a single drive failure in an array. A minimum of four disk drives are required for RAID-6, providing protection against up to two drives failing in an array. #5592 can be used to expand the number of disk slots of the primary i5/OS partition to 8 disk slots or it can provide four disk slots capacity to a second i5/OS partition. #5592 and #5593 are physically identical, but have different feature numbers to indicate to IBM configurator tools that either i5/OS, AIX 5L, or Linux will be driving the disk slots. The disk controller used is physically equivalent to the #5776 disk controller.

- Attributes provided: Four disk slot expansion and controller
- Attributes required: Model 515
- For 9407-515: (#5592)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5593) — 4 Disk Slot Exp + Controller:** This feature provides a disk backplane, which enables the second set of four disk slots in a model 515 and provides a disk controller to run these four disk slots. The disk controller is plugged into either the C4 or the C6 PCI slot of the 515 system unit. The disk controller has 90MB write cache and can provide RAID protection for the disk drives. Mirroring protection is provided via the operating system.

#5593 can be used to provide four disk slots capacity to a AIX 5L or Linux partition.

#5592 and #5593 are physically identical, but have different feature numbers to indicate to IBM configurator tools that either i5/OS, or AIX 5L, or Linux will be driving the disk slots. The disk controller used is physically equivalent to the #0648 disk controller.

- Attributes provided: Four disk slot expansion and controller
- Attributes required: Model 515
- For 9407-515: (#5593)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5700) — PCI 1Gbps Ethernet IOA:** The #5700 is a PCI-X IOA that allows an iSeries server to attach to IEEE standard 802.3Z high speed (1Gbps) Ethernet LANs. A #5700 can also be used to connect to existing 100/10Mbps Ethernet LANs. This adapter supports a multimode fiber interface with a 62.5 micron or 50.0 micron cable requirement. The adapter has a duplex LC fiber-optic connector for attachment to customer-supplied cabling.

The #5700s only supports TCP/IP, and requires an intervening switch/hub/router when connection to 1Gbps or 100/10Mbps networks.

A #5700 is supported by a #2892 or #4810 Integrated xSeries® Server.

- If a #5700 will be controlled/driven by a #2792 or #4810, then specify code #0226 (1Gbps Ethernet Specify) must be ordered. One #0226 for each #5700 controlled/driven by an integrated server.

#5700, #0620 and #6800 are physically the same adapter card but have different feature numbers to indicate to IBM configurator tools that an IOP is or is not being used in the configuration.

- Attributes provided: 1000/100/10 Ethernet LAN Interface
- Attributes required: One short or long, 3.3V or 5V PCI-X slot
- For 9407-515: (#5700)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5701) — PCI 1Gbps Ethernet UTP IOA:** #5701 provides PCI-X attachment to IEEE standard 802.3ab high-speed (1Gbps) Ethernet LANs. It can also be used to connect to existing 10Mbps or 100Mbps Ethernet LANs using switches with 10/100/ 1000Mbps ports. The adapter supports a UTP CAT 5 media interface, and only TCP/IP.

If #5701 is used with a #2792 or #2892, then one specify code #0226, 1Gbps Ethernet Specify, must be ordered for each #5701.

#6800 and #5700 are physically the same adapter card but have different feature numbers to indicate to IBM configurator tools that an IOP is or is not being used in the configuration.

#5701, #0621 and #6801 are physically the same adapter card but have different feature numbers to indicate to IBM configurator tools that an IOP is or is not being used in the configuration.

- Attributes provided: 1000/100/10 Ethernet LAN Interface
- Attributes required: One short or long, 3.3V or 5V PCI-X slot
- For 9407-515: (#5701)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5706) — PCI-X 1Gbps Ethernet-TX IOA:** The #5706 is a 2-port 1000/100/10Mbps Base-TX Ethernet PCI-X Adapter. The #5706 is a Full Duplex, dual ported, Gigabit Ethernet adapter designed with highly integrated components. This adapter can be configured to run either port at 1000, 100, or 10 Mbps data rate. This adapter interfaces to the system via a PCI or PCI-X bus and connects to a network using a 4-pair CAT-5 Unshielded Twisted Pair (UTP) cable for distances of up to 100m. The adapter conforms to the IEEE 802.3ab 1000Base-T standard. The #5706 also supports jumbo frames when running at the 1000 Mbps speed.

i5/OS V5R3 does not support a #5706 function called 'Large Send' or sometimes known as TCP Segmentation. This function offloads the TCP segmentation operation from the IP layer to the adapter for outgoing (transmit side) TCP segments.

i5/OS V5R3 does not support a #5706 function known as "Checksum Offload" which offloads the TCP/UDP Checksum Operation or workload from the CPU to the adapter.

The #5706 does not support SNA.

The #5706 does not require a PCI IOP, even in an i5/OS partition.

**Note:** For optimum performance, the adapter should be placed in a 64 bit PCI-X card slot whenever possible.

Limitations: The 1000 Mbps speed is not supported in Half Duplex (HDX) mode.

- Attributes provided: Two full-duplex 1000/100/10Base-TX UTP connections to Gigabit Ethernet LANs.
- Attributes required: One 3 volt PCI or PCI-X card slot (either long or short)
- For 9407-515: (#5706)
  - Minimum required: 0
  - Maximum allowed: 3 (Initial order maximum: 3)
  - OS level required: i5/OS V5R4, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5707) — PCI-X 1Gbps Ethernet-SX IOA:** The #5707 is a 2-Port Gigabit Ethernet-SX PCI-X Adapter that provides two 1Gbps (1000 Base-SX) full-duplex Ethernet LAN connections with throughput on a standard shortwave multimode optical cable that conforms to the IEEE 802.3z standard. The adapter supports distances of 260m for 62.5 micron Multi Mode Fiber (MMF) and 550m for 50.0 micron MMF.

i5/OS V5R3 does not support a #5707 function called 'Large Send' or sometimes known as TCP Segmentation. This function offloads the TCP segmentation operation from the IP layer to the adapter for outgoing (transmit side) TCP segments.

i5/OS V5R3 does not support a #5707 function known as "Checksum Offload" which offloads the TCP/UDP Checksum Operation or workload from the CPU to the adapter.

The #5707 does not support SNA.

#5707 does not require a PCI IOP, even in an OS/400 partition.

**Note:** For optimum performance, the adapter should be placed in a 64 bit PCI-X card slot whenever possible.

The 2-Port IBM Gigabit Ethernet-SX PCI-X Adapter incorporates an LC type connector on the card.

Limitation: Half Duplex (HDX) mode is not supported.

- Attributes provided: Two full-duplex 1000Base-SX fiber connections to a Gigabit Ethernet LANs.
- Attributes required: One 3V PCI or PCI-X card slot (either short or long)
- For 9407-515: (#5707)
  - Minimum required: 0
  - Maximum allowed: 3 (Initial order maximum: 3)
  - OS level required: i5/OS V5R4, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5721) — PCI-X 10Gbps Ethernet-SR IOA:** Provides 10Gbps Ethernet server connection using a PCI-X DDR IOA. Supports distances of up to 33m using 62.5um multimode fiber or 300m using 50um multimode fiber with 2000MHz km minimum model bandwidth at 850nm. Adapter connector type is LC.

#5721 does not support SNA. #5721 is a smart IOA and operates only in IOP-less mode, even when used by i5/OS.

- Attributes provided: 10Gbps Ethernet connection
- Attributes required: Available PCI-X slot. However, for improved bandwidth plug into PCI-X 2.0 DDR slot
- For 9407-515: (#5721)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 4, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5722) — PCI-X 10Gbps Ethernet-LR IOA:** Provides 10Gbps Ethernet server connection using a PCI-X DDR IOA. Supports distances of up to 10 kilometers of 1310nm 9um single-mode fiber optic cable. #5722 conforms to the IEEE 802.3ae standard. #5722 requires 9um single-mode fiber optic cables and uses an SC connector type for connecting into network infrastructure components like 10Gbps Ethernet switch/router with SC connectors.

#5722 does not support SNA. #5722 is a smart IOA and operates only in IOP-less mode, even when used by i5/OS.

- Attributes provided: 10Gbps Ethernet connection
- Attributes required: Available PCI-X slot, however, for improved bandwidth plug into PCI-X 2.0 DDR slot
- For 9407-515: (#5722)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later, AIX 5L for Power V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 4, or later, SUSE Linux Enterprise Server 9 for POWER or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5727) — Integrated Cache — 40MB:** Provides a card which augments the base integrated disk controller of the model 515, 520, 525, or the model 550 with 40MB of write cache and also enables RAID-5 capability for the internal disk drives of the system unit. This feature is functionally equivalent to #5709, but can run in IOP-less mode. #5727 is installed into its own specific internal slot of a system unit and does not require a PCI slot.

A minimum of three disk units are required for a RAID-5 disk array.

- Attributes provided: 40MB write cache and RAID-5 data protection for system unit disk drives
- Attributes required: Unused write cache/RAID controller slot in the system unit.
- For 9407-515: (#5727)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 0)
  - OS level required: i5/OS V5R3, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#5736) — PCI-X Disk/Tape Ctrlr w/IOP:** Provides a PCI-X Disk/Tape SCSI Controller with zero write cache and without RAID support. Disk mirroring support is supported through i5/OS. A

maximum of six disk drives are supported on the #5736. Removable media devices (tape, optical libraries, CD-ROM, DVD-ROM, or DVD-RAM) are also supported on the #5736.

The #5736 has two U320 buses each with a bus data rate of up to 320MBs. Each SCSI bus can be either internal (using an internal port) or external (using an external port), but not both. There are four physical ports on the #5736, two internal and two external.

Internal devices connect to the internal ports (1 or 2). External devices connect to the external ports (1 or 2) and use an LVD (Low Voltage Differential) interface and VHDCI connectors. A #1850 VHDCI to P Converter Cable is available to connect to external devices with type P connectors.

A maximum of one external port per #5736 controller can be used for an EXP24 Disk Enclosure to attach one six-pack of disk. The #0300 specify indicates to the IBM Configurator tool is being used in this manner.

- Attributes provided: Two Ultra320 SCSI VHDCI ports which may be either internal or external but not both.
- Attributes required: One available 3.3 volt PCI or PCI-X slot
- For 9407-515: (#5736)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 4)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** The model 515 only supports the use of this controller as an external tape/DVD controller.

**(#5753) — 30GB 1/4-Inch Cartridge Tape:** Mounted in a removable media device slot in a system unit, the #5753 may be used for save/restore, alternate IPL, program distribution, migration and 1/4-inch cartridge tape exchange.

#5753 will read/write the following tape formats:

- 30GB (up to 60GB with compression in SLR60 format) with IBM SLR60-30GB Data Cartridge (19P4209)
- 25GB (up to 50GB with compression in MLR3 format) with IBM MLR3-25GB Data Cartridge (59H4128)
- 16GB (up to 32GB with compression in QIC5010 format) with IBM MLR1-16GB Data Cartridge (59H4175)
- 5GB (up to 10GB with compression in SLR100 format) with IBM SLR100-5GB Data Cartridge (35L0661)
- 2GB (up to 4GB with compression in QIC5010 format) with IBM MLR1-2GB Data Cartridge (35L0589)

#5753 is capable of read only support of the following tape formats:

- 4GB (QIC4GB format) with SLR5-4GB Data Cartridge (59H3660)
- 2.5GB (QIC2GB format) with IBM DC9250 Data Cartridge (16G8436)

#5753 has the these technical specifications for the primary recording format:

- Cartridge Capacity (Native) = 30.0GB (1500-ft tape)
- Cartridge Capacity (Compression) = 60.0GB (1500-ft tape)
- Data Rate (Native) = 4.0MB/s
- Data Rate (Compression) = 8.0MB/s
- Attributes provided: 30GB 1/4-inch tape device

- Attributes required: Half-high, bolt-in, removable media bay in a system unit.
- For 9407-515: (#5753)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** #5753 may be mounted in a removable media device slot in the model 515, 520, or 525 system unit.

**(#5775) — PCI-X Disk/Tape Ctlr-No IOP:** Provides a PCI-X Disk/Tape SCSI Controller with zero write cache and without RAID support. Disk mirroring is supported through i5/OS. A maximum of six disk drives are supported on the #5775. Removable media devices (tape, optical libraries, DVD-ROM, or DVD-RAM) are also supported on the #5775.

The #5775 has two U320 buses each with a bus data rate of up to 320MBs. Each SCSI bus can be either internal (using an internal port) or external (using an external port), but not both. There are four physical ports on the #5775, two internal and two external.

Internal devices connect to the internal ports (1 or 2). External devices connect to the external ports (1 or 2) and use an LVD (Low Voltage Differential) interface and VHDCI connectors. A #1850 VHDCI to P Converter Cable is available to connect to external devices with type P connectors.

A maximum of one external port per #5775 controller can be used for an EXP24 Disk Enclosure to attach one six-pack of disk. The #0300 specify indicates to the IBM Configurator tool it is being used in this manner. The 515 only supports the use of this controller as a tape controller.

- Attributes provided: Two Ultra320 SCSI VHDCI ports which may be either internal or external but not both.
- Attributes required: One available 3.3 volt PCI or PCI-X slot
- For 9407-515: (#5775)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 4)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** The model 515 only supports the use of this controller as an external tape/DVD controller.

**(#5783) — PCI-X iSCSI HBA Copper:** This feature provides a 1Gbps copper iSCSI target HBA, which is used to connect to iSCSI initiator HBAs installed in selected System x™ models or IBM BladeCenter® blade servers. The iSCSI connection is used to provide System i systems management, networking, and disk consolidation features to attached System x or blade servers using a 1Gbps Ethernet LAN.

#5783 uses an RJ45 Gigabit Ethernet connector and provides 1000Mbps connectivity over standard CAT-5e or CAT6 cables to support communications up to a distance of 100m. #5783 conforms to the IEEE 802.3ab 1000Base-T standard.

- Attributes provided: Connection to target host bus adapter (HBA)
- Attributes required: Available 3.3V slot
- For 9407-515: (#5783)
  - Minimum required: 0
  - Maximum allowed: 6 (Initial order maximum: 6)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both

- CSU: Yes

**(#5784) — PCI-X iSCSI HBA Fiber:** This feature provides a 1Gbps fiber iSCSI target HBA, which is used to connect to iSCSI initiator HBAs installed in selected System x models or IBM BladeCenter blade servers. The iSCSI connection provides System i systems management, networking, and disk consolidation features to attached System x or blade servers using a 1Gbps Ethernet LAN.

#5784 uses small form factor LC type fiber optic connector and provides 1000Mbps connectivity on a standard shortwave (850nm) 50/ 62.5 micron multimode fiber optic cable. #5784 supports distances of up to 220m for 62.5u MMF and up to 500m for 50.0u MMF over single port. #5784 conforms to the IEEE 802.3z standard.

- Attributes provided: Connection to target host bus adapter (HBA)
- Attributes required: Available 3.3V PCI-X slot
- For 9407-515: (#5784)
  - Minimum required: 0
  - Maximum allowed: 6 (Initial order maximum: 6)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6010) — 515 Express Configuration 1:** #6010 is an edition feature designating an Express Configuration of a 9407-515 system with server feature #4901 and processor feature #8327.

- Attributes provided: 515 Express Edition
- Attributes required: Server feature #4901 and processor feature #8327
- For 9407-515: (#6010)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6011) — 515 Express Configuration 2:** #6011 is an edition feature designating an Express Configuration of a 9407-515 system with server feature #4901 and processor feature #8327.

- Attributes provided: 515 Express Edition
- Attributes required: Server feature #4901 and processor feature #8327
- For 9407-515: (#6011)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6018) — 515 Base Product Config 1:** #6018 is an edition feature designating a Base Product Configuration of a 9407-515 system with server feature #4901 and processor feature #8327.

- Attributes provided: 515 System Edition
- Attributes required: Server feature #4901 and processor feature #8327

- For 9407-515: (#6018)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6021) — 515 Express Configuration 3:** #6021 is an edition feature designating an Express Configuration of a 9407-515 system with server feature #4903 and processor feature #8330.

- Attributes provided: 515 Express Edition
- Attributes required: Server feature #4903 and processor feature #8330
- For 9407-515: (#6021)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6028) — 515 Base Product Config 2:** #6028 is an edition feature designating a Base Product Configuration of a 9407-515 system with server feature #4903 and processor feature #8330.

- Attributes provided: 515 System Edition
- Attributes required: Server feature #4903 and processor feature #8330
- For 9407-515: (#6028)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6068) — Opt Front Door for 1.8m Rack:** #6068 provides an attractive black full height rack door on the #0551 iSeries 1.8m Rack. The door is steel, with a perforated flat front surface. The perforation pattern extends from the bottom to the top of the door to enhance ventilation and provide some visibility into the rack.

Additional option: #6580 Optional Rack Security Kit

- Attributes provided: Front Door
- Attributes required: #0551 iSeries 1.8m Rack
- For 9407-515: (#6068)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6246) — 1.8m Rack Trim Kit:** This feature provides a decorative trim kit for the front of an #0551 iSeries 1.8m Rack.

Early versions of #0551 did not have #6246 associated with it, even though a 1.8m Rack Trim Kit

was installed on the #0551 rack.

- Attributes provided: Decorative trim kit
- Attributes required: #0551 iSeries 1.8m Rack
- For 9407-515: (#6246)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6258) — 36GB 4mm Tape Unit:** The #6258 4mm 36/72GB tape drive is an internal, bolt-in, 5.25-inch, half-high, single ended SCSI-2 tape drive that provides a high-capacity for save/restore functions.

Characteristics:

- Capacity: 36GB native mode, 72GB (typical) compression mode
- Form Factor: 5.25-inch, half-high
- Media: IBM 4mm DAT72 data cartridge
- Technology: Helical scan, rotating head
- Operation: Streaming
- Data Transfer Rate: 3MBps native mode, 6MBps (typical) compression mode
- Interface: SCSI-2 (single ended)
- Compatibility: Read/Write of DDS3, DDS4 and DAT72 media
  
- Attributes provided: 4mm 36/72GB internal bolt-in tape drive
- Attributes required: One 5.25-inch half-high media bay, #0140 (Logical Partitioning Specify) and (#0142 (Linux Partition Specify) and/or #0145 (AIX Partition Specify))
- For 9407-515: (#6258)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 0)
  - OS level required: i5/OS V5R4, or later, AIX 5L for Power V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** This feature includes the required data and power cables for installation. No additional data/power cable feature needs to be ordered.

**(#6458) — 14-Ft Int 250V/10A Pwr Cd:** #6458 power cord is used from a racked device to a #5160/#5161/ #5162/5163/#7188 Power Distribution Unit in that same rack.

- Attributes provided: Power distribution from PDU to racked device
- Attributes required: Rack with PDU and racked device
- For 9407-515: (#6458)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both

- CSU: Yes

**(#6460) — 14-Ft 125V/15A Power Cord:** #6460 is a 14-foot 125V/15A power cord that distributes power from a wall outlet to a system unit. #6460 has a Type 4 plug and an IEC320 C13 connector.

- For 9407-515: (#6460)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6469) — 14-Ft 250V/15A Power Cord:** #6469 is a 14-foot 250V/15A power cord that distributes power from a wall outlet to a system unit. #6469 has a type 5 plug and an IEC320 C13 connector.

- For 9407-515: (#6469)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6470) — 6-Ft 125V/15A Power Cord:** #6470 is a 6-FT 125V/15A power cable which distributes power from a power source to a system unit or an expansion unit. #6470 has a Type 4 plug and a IEC320 C13 connector.

- For 9407-515: (#6470)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6487) — 6-Ft 250V/15A Power Cord:** #6487 is a 6-foot 250V/15A power cord which distributes power to a system unit or expansion tower/rack. #6487 has a Type 5 plug and a IEC320 C13 connector.

- For 9407-515: (#6487)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6492) — 14-Ft 1PH/48-60A Pwr Cord:** #6492 is a 14-FT/4.3m 200-240V/48A power cord with a Type 46 plug which distributes power from a power source to a Power Distribution Unit.

- For 9407-515: (#6492)
  - Minimum required: 0

- Maximum allowed: No Max (Initial order maximum: 250)
- OS level required: N/A
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#6497) — 6-Ft 250V/15A Power Cord:** #6497 is a 6-foot 250V/15A power cord which distributes power to a system unit or expansion tower/rack. #6497 has a Type 10 plug and a IEC320 C13 connector.

- For 9407-515: (#6497)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6498) — 6-Ft 250V/15A Power Cord:** #6498 is a 6-foot 250V/15A power cord which distributes power to a system unit or expansion tower/rack. #6498 has a Type 34 plug and a IEC320 C13 connector.

- For 9407-515: (#6498)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6580) — Optional Rack Security Kit:** This feature provides hardware that can be added to a rack to prevent unauthorized access. It includes keyed front and rear locks for the #0551 and #0553 rack doors. It also includes two sliding bars that mount inside the left and right rack side panels. The sliding bars are accessible when the rack rear door is open. They can be moved to a position that disables the external latches on the rack side panels, and prevents removal of the side panels.

- Attributes provided: Locking hardware for rack doors and side panels
- Attributes required: #0551 iSeries 1.8m Rack or #0553 iSeries 2.0m Rack
- For 9407-515: (#6580)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6585) — DASD Locking Kit:** Provides a locking mechanism which secures up to four disk units in the deskside system (#7885). Each #6585 kit can secure 4 disk units in the system unit. When #6585 is installed and secured with a user-provided padlock, the disk units cannot be removed easily.

- Attributes provided: Disk Unit security
- For 9407-515: (#6585)
  - Minimum required: 0

- Maximum allowed: 2 (Initial order maximum: 0)
- OS level required: N/A
- Initial Order/MES/Both/Supported: Both
- CSU: Yes

**(#6586) — Modem Tray for 19-Inch Rack:** This feature provides hardware for installing one or two modems in a 19-inch rack. The modem tray occupies 1U of rack space when it is mounted in the front of the rack. It provides a secure location in the rack for external modems such as the ones attached to the Hardware Management Console.

- Attributes provided: Space for two modems
- Attributes required: 19-inch rack with 1U rack space available
- For 9407-515: (#6586)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 0)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6587) — Rear Cover:** A decorative rear cover which has sound deadening capability. This cover is for servers which do not have external I/O attached to an HSL loop. The cover can not be used if HSL cables are attached to the server.

- For 9407-515: (#6587)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6598) — Disk Slot Filler (Qty 4):** Provides covers for installation in disk slots which have been emptied after the system unit or disk unit expansion unit was shipped from IBM. Four covers are shipped with each #6598.

When shipped from IBM, all disk slots are filled with either disk drives or slot fillers. If a disk is removed, IBM recommends the slot be refilled with either another disk drive, or a disk slot filler. Filling the disk slot helps ensure proper air-flow for cooling and helps maintain EMI compliance.

On initial orders, one #6598 is defaulted when one or more #0140 Logical Partitioning Specify is also on the order.

- Attributes provided: Four disk slot covers
- Attributes required: Empty disk slots
- For 9407-515: (#6598)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**Note:** May be installed in model 515 system unit and in #5786 and #5787 expansion units.

**(#6654) — 14-Ft 1PH/24-30A Pwr Cord:** #6654 is a 14-FT/4.3m 200-240V/24A locking power

cord with a Type 12 plug which distributes power from a power source to a Power Distribution Unit.

- For 9407-515: (#6654)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: n/a
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6655) — 14-Ft 1PH/24-30A WR Pwr Cord:** #6655 is a 14-FT/4.3m 200-240V/24A water-resistant power cord with a Type 40 plug which distributes power from a power source to a Power Distribution Unit.

- For 9407-515: (#6655)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: n/a
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6671) — 9Ft IEC 320 C13/14 PDU Cord:** This power cord is used from a racked device to a power distribution unit in that same rack. This cord is primarily intended for use with the smaller #0554 11U and #0555 25U racks.

- For 9407-515: (#6671)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 0)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6672) — 5Ft IEC 320 C13/14 PDU Cord:** This power cord is used from a racked device to a Power Distribution Unit in that same rack. This cord is primarily intended for use with the smaller #0554 11U and #0555 25U racks. Care must be taken before ordering this cord to ensure it has sufficient length, especially when used with a drawer that slides out for concurrent maintenance service.

- For 9407-515: (#6672)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 0)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6800) — PCI 1Gbps Ethernet IOA:** Provides a PCI-X IOA which does not require an IOP and allows a System i5™ to attach to IEEE standard 802.3Z high speed (1Gbps) Ethernet LANs. The #6800 adapter supports a multimode fiber interface with a 62.5 micron or 50.0 micron cable requirement. The adapter has a duplex LC fiber-optic connector for attachment to customer-supplied cabling.

The #6800 only supports TCP/IP and requires an intervening switch/ hub/router when connection to 100Mbps or 10Mbps networks.

#6800, #0620, and #5700 are physically the same adapter card but have different feature

numbers that denote to IBM configurator tools whether or not an IOP is required.

- Attributes provided: 1000/100/10 Ethernet LAN Interface
- Attributes required: One short or long, 3.3V or 5V PCI-X slot
- For 9407-515: (#6800)
  - Minimum required: 0
  - Maximum allowed: 5 (Initial order maximum: 0)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6801) — PCI 1Gbps Ethernet UTP IOA:** Provides a PCI-X IOA which does not require an IOP and allows a System i5 to attach to IEEE standard 802.3ab high speed (1Gbps) Ethernet LANs. The adapter supports a UTP CAT 5 media interface.

The #6801 only supports TCP/IP and requires an intervening switch/ hub/router when connection to 100Mbps or 10Mbps networks.

#6801, #0621, and #5701 are physically the same adapter card but have different feature numbers that denote to IBM configurator tools whether or not an IOP is required.

- Attributes provided: 1000/100/10 Ethernet LAN Interface
- Attributes required: One short or long, 3.3V or 5V PCI-X slot
- For 9407-515: (#6801)
  - Minimum required: 0
  - Maximum allowed: 5 (Initial order maximum: 0)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#6803) — PCI WAN for ECS:** The #6803 is a WAN w/modem adapter which provides connectivity for IBM Electronic Customer Support (ECS) only. This feature is the non-CIM (Complex Impedance Matching) version offered in all countries except Australia and New Zealand. #6803 is functionally equivalent to #0614/#2793/#9793, but #6803 indicates to IBM configurator tools that the IOA is being used by i5/OS in an IOP-less mode. When in IOP-less mode the adapter function is restricted to communicating to IBM ECS on port 0 (modem port). Port 1 is the RVX port and is not supported in an IOP-less mode.

Port 0 supports V.92 56K PPP, V.92 data modem and V.44 data compression. Port 0 does not provide Synchronous modem capabilities (SDLC and Synchronous PPP).

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 — UK
- #1018 Modem Cable — Iceland/Sweden
- #1020 Modem Cable — HK/NZ
- #1021 Modem Cable — Fin/Nor

- #1022 Modem Cable — Netherlands
- #1023 Modem Cable — Swiss
- #1024 Modem Cable — Denmark
- #1025 Modem Cable — U.S/Canada

The #6803 does not support the remote ring indicate function. This feature has country specific usage.

- Attributes provided: One integrated modem port for communication with IBM ECS
- Attributes required: One PCI slot (3 volt)
- For 9407-515: (#6803)
  - Minimum required: 0
  - Maximum allowed: 5 (Initial order maximum: 0)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#7181) — Easy-Access Front Cover:** Provides a front cover which has an easy access bezel for the deskside system unit.

- Attributes provided: Front Cover with Easy Access Bezel
- Attributes required: Deskside System Unit
- For 9407-515: (#7181)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#7182) — Rack Mount:** Indicates this is a rack-mounted system unit. System will ship with IBM mounting rails for installation in an IBM standard 19-inch rack. Rails are fixed at 28 inch depth and a front bezel is included. Add #7198 Adjustable Depth Rack Rails to #7182 if adjustable length rails are needed.

- Attributes provided: Rack mounted system unit
- Attributes required: Rack mounted system unit
- For 9407-515: (#7182)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 0)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#7188) — Power Distribution Unit:** An AC Power Distribution Unit (PDU) which mounts in an iSeries rack and provides twelve C13 power outlets. The #7188 has six 16A circuit breakers, with two power outlets per circuit breaker. System units and/or expansion units must use a power cord with a C14 plug to connect to the #7188.

One of the following line cords must be used to distribute power from a wall outlet to the #7188;

- #6489 — 14-Ft 3PH/24A Power Cord

- #6491 — 14-Ft 1PH/63A Pwr Cord
- #6492 — 14-Ft 1PH/48-60A Pwr Cord
- #6653 — 14-Ft 3PH/16A Power Cord
- #6654 — 14-Ft 1PH/24-30A Pwr Cord
- #6655 — 14-Ft 1PH/24-30A WR Pwr Cord
- #6656 — 14-Ft 1PH/32A Power Cord
- #6657 — 14-Ft 1PH/24A Power Cord
- #6658 — 14-Ft 1PH/24A Pwr Cd-Korea
  
- Attributes provided: Power Distribution Unit with Twelve C13 power outlets.
- Attributes required: iSeries Rack
- For 9407-515: (#7188)
  - Minimum required: 0
  - Maximum allowed: No Max (Initial order maximum: 250)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#7198) — Adjustable Depth Rack Rails:** Provides rails that are adjustable to a depth of 29.5 inches for mounting a system unit in an OEM rack. The fixed depth rails provided in the prerequisite Rack Mount specify, are replaced by the adjustable rails. The adjustable rails are installed by the client.

- Attributes provided: Ability to mount the system unit in an OEM rack
- Attributes required: Rack mounted system unit
- For 9407-515: (#7198)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 0)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#7885) — Deskside:** Indicates this is a deskside system.

- For 9407-515: (#7885)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 3, or later, SUSE LINUX Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#7966) — Adv Power Virtualization:** Provides partitioning, Micro-Partitioning, and Virtual I/O Server capability on the Model 515.

Partitioning provides the ability to have more than one partition on the system. Micro-Partitioning provides processor partition granularity to tenths of a processor. The Virtual I/O Server is a special-purpose partition that provides virtual I/O resources to AIX 5L and Linux client partitions. The Virtual I/O Server partition owns the resources that are shared with clients.

On the model 515, Advanced Power Virtualization must be purchased for either none of the processors or all of the processors of the system. Therefore, if a 1-way #8327: Qty = 0 or 1. If a 2-way #8330: Qty = 0 or 2.

- Attributes provided: Partitioning, Micro-Partitioning, and Virtual I/O Server capability
- Attributes required: None
- For 9407-515: (#7966)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#8327) — 1.9GHz Processor:** #8327 is a base system planar that contains a 1-way POWER5+™ processor with 36MB of L3 cache. It includes eight memory DIMM slots and a minimum of one memory feature (one pair of DDR2 DIMMs) is required.

- Attributes provided: 1-way POWER5+ processor
- For 9407-515: (#8327)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later, AIX 5L for Power V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 4, or later, SUSE Linux Enterprise Server 9 for POWER or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: No

**(#8330) — 1.9GHz Proc 0/2-Way:** #8330 is a system planar that contains a 0/2-way dual chip POWER5+ processor with 36MB of L3 cache. It includes eight memory DIMM slots and a minimum of one memory feature (one pair of DDR2 DIMMs) is required.

- Attributes provided: 0/2-way POWER5+ processor
- For 9407-515: (#8330)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required:
  - Initial Order/MES/Both/Supported: Both
  - CSU: No

**(#8410) — Base Proc Activation:** Provides an activation code that can be used to permanently activate one processor

- Attributes provided: One permanently activated processor
- Attributes required: Model 515, 520, or 525
- For 9407-515: (#8410)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required:
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#8428) — Base Proc Activation:** This feature provides an activation code that can be used to permanently activate one processor on a model 515 system with processor #8330.

- Attributes provided: One permanently activated processor
- Attributes required: Model 515
- For 9407-515: (#8428)
  - Minimum required: 0
  - Maximum allowed: 2 (Initial order maximum: 2)
  - OS level required: i5/OS V5R4, or later, AIX 5L for Power V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 4, or later, SUSE Linux Enterprise Server 9 for POWER or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#8753) — 30GB 1/4-Inch Cartridge Tape:** Mounted in a removable media device slot in a system unit, the #8753 may be used for save/restore, alternate IPL, program distribution, migration and 1/4-inch cartridge tape exchange.

#8753 will read/write the following tape formats:

- 30GB (up to 60GB with compression in SLR60 format) with IBM SLR60-30GB Data Cartridge (19P4209)
- 25GB (up to 50GB with compression in MLR3 format) with IBM MLR3-25GB Data Cartridge (59H4128)
- 16GB (up to 32GB with compression in QIC5010 format) with IBM MLR1-16GB Data Cartridge (59H4175)
- 5GB (up to 10GB with compression in SLR100 format) with IBM SLR100-5GB Data Cartridge (35L0661)
- 2GB (up to 4GB with compression in QIC5010 format) with IBM MLR1-2GB Data Cartridge (35L0589)

#8753 is capable of read only support of the following tape formats:

- 4GB (QIC4GB format) with SLR5-4GB Data Cartridge (59H3660)
- 2.5GB (QIC2GB format) with IBM DC9250 Data Cartridge (16G8436)

#8753 has the these technical specifications for the primary recording format:

- Cartridge Capacity (Native) = 30.0GB (1500-ft tape)
- Cartridge Capacity (Compression) = 60.0GB (1500-ft tape)
- Data Rate (Native) = 4.0MB/s
- Data Rate (Compression) = 8.0MB/s
- Attributes provided: 30GB 1/4-inch tape device
- Attributes required: Half-high, bolt-in, removable media bay in a system unit.
- For 9407-515: (#8753)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9258) — 36GB 4mm Tape Unit:** The #9258 4mm 36/72GB tape drive is an internal, bolt-in,

5.25-inch, half-high, single ended SCSI-2 tape drive that provides a high-capacity for save/restore functions.

Characteristics:

- Capacity: 36GB native mode, 72GB (typical) compression mode
- Form Factor: 5.25-inch, half-high
- Media: IBM 4mm DAT72 data cartridge
- Technology: Helical scan, rotating head
- Operation: Streaming
- Data Transfer Rate: 3MBps native mode, 6MBps (typical) compression mode
- Interface: SCSI-2 (single ended)
- Compatibility: Read/Write of DSS3, DSS4 and DAT72 media
  
- Attributes provided: 4mm 36/72GB internal bolt-in tape drive
- Attributes required: One 5.25-inch half-high media bay
- For 9407-515: (#9258)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9493) — Base PCI WAN for ECS:** The #9493 is a WAN with modem adapter that provides connectivity for IBM Electronic Customer Support (ECS) only. This feature is the non-Complex Impedance Matching (CIM) version offered in all countries except Australia and New Zealand. #9493 is functionally equivalent to #0614, #2793, and #9793, but #9493 indicates to IBM configurator tools that the IOA is being used by i5/OS in an IOP-less mode. When in IOP-less mode, the adapter function is restricted to communicating to IBM ECS on port 0 (modem port). Port 1 is the RVX port and is not supported in an IOP-less mode.

Port 0 supports V.92 56K PPP, V.92 data modem, and V.44 data compression. Port 0 does not provide synchronous modem capabilities (SDLC and synchronous PPP).

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 — U.K.
- #1018 Modem Cable — Iceland/Sweden
- #1020 Modem Cable — Hong Kong/New Zealand
- #1021 Modem Cable — Finland/Norway
- #1022 Modem Cable — Netherlands
- #1023 Modem Cable — Switzerland
- #1024 Modem Cable — Denmark

- #1025 Modem Cable — U.S./Canada

The #9493 does not support the remote ring indicate function. This feature has country-specific usage.

- Attributes provided: One integrated modem port for communication with IBM ECS
- Attributes required: One PCI slot (3 volt)
- For 9407-515: (#9493)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#9510) — Base Integrated Cache — 40MB:** Provides a card that augments the base integrated disk controller with 40MB of write cache and enables RAID-5 capability for the internal disk drives of the system unit. #9510 is installed into its own specific internal slot of a system unit and does not require a PCI slot. The #9510 is physically equivalent to the #5727.

A minimum of three disk units are required for a RAID-5 disk array.

- Attributes provided: 40 MB write cache and RAID-5 data protection for system unit disk drives
- Attributes required: Unused write cache/RAID controller slot in a system unit.
- For 9407-515: (#9510)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later, AIX 5L for POWER V5.2 for IBM eServer, or later, Red Hat Enterprise Linux AS for POWER Version 4, or later, SUSE Linux Enterprise Server 9 for POWER, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9540) — Base DVD-ROM:** The 8X/24X(max) Slimline IDE DVD-ROM Drive is an internal tray loading DVD-ROM drive providing up to 3600KB/sec (CD-ROM) and 10.3MB/ sec (DVD-ROM) data transfer rates. DVD video is not supported.

Characteristics:

- Media Data Transfer Rate: CD-ROM=3600 KB/sec (max), DVD-ROM=10.3MB/sec (max)
- Interface: IDE/ATAPI
- Avg. Random Access Time: CD-ROM=95ms(typical), DVD-ROM=150ms (typical)
- Buffer Memory: 256KB
- Media capacity: CD-ROM=650MB, DVD-ROM= 4.7 GB(single sided)/9.4 GB(double-sided)
- Multisession capable (Reads CD/R & CD-R/W media)
- 12.7mm Slimline form factor
- Operates in either vertical or horizontal positions
- Interface supports standard and extended XA formats
- Loading tray supports 12cm and 8cm disks
- Attributes provided: 8X/24X(max) IDE DVD-ROM Drive
- Attributes required: One Slimline media bay

- For 9407-515: (#9540)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5OS V5R3, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9548) — Base 1GB Main Storage:** Provides 1GB of zero-priced main storage. #9548 consists of two 512MB DDR2 DIMMs.

- Attributes provided: 1GB of main storage
- Attributes required: 2 DDR2 DIMM slots
- For 9407-515: (#9548)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9549) — Base 2GB Main Storage:** Provides 2GB of zero-priced main storage. #9549 consists of two 1GB DDR2 DIMMs.

- Attributes provided: 2GB of main storage
- Attributes required: 2 DDR2 DIMM slots
- For 9407-515: (#9549)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3 with V5R3M5 Machine Code, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9613) — Base 70GB 15k rpm Disk Unit:** #9613 is a base 15k rpm disk unit with 70.56GB capacity and an Ultra320 SCSI interface. #9613 is physically equivalent to a #4327 disk drive.

- Attributes provided: 70.56GB disk unit
- Attributes required: disk unit slot and a disk unit controller
- For 9407-515: (#9613)
  - Minimum required: 0
  - Maximum allowed: 4 (Initial order maximum: 4)
  - OS level required: i5/OS V5R4, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9653) — Base 30GB 1/4-Inch Cart Tape:** #9653 is a base 30GB 1/4-Inch Cartridge Tape Unit mounted in a removable media device slot of a system unit.

#9653 may be used for save/restore, alternate IPL, program distribution, migration and 1/4-inch cartridge tape exchange.

#9653 will read/write the following tape formats:

- 30GB (up to 60GB with compression in SLR60 format) with IBM SLR60-30GB Data Cartridge (19P4209)
- 25GB (up to 50GB with compression in MLR3 format) with IBM MLR3-25GB Data Cartridge (59H4128)
- 16GB (up to 32GB with compression in QIC5010 format) with IBM MLR1-16GB Data Cartridge (59H4175)
- 5GB (up to 10GB with compression in SLR100 format) with IBM SLR100-5GB Data Cartridge (35L0661)
- 2GB (up to 4GB with compression in QIC5010 format) with IBM MLR1-2GB Data Cartridge (35L0589)

#9653 is capable of read only support of the following tape formats:

- 4GB (QIC4GB format) with SLR5-4GB Data Cartridge (59H3660)
- 2.5GB (QIC2GB format) with IBM DC9250 Data Cartridge (16G8436)

#9653 has the these technical specifications for the primary recording format:

- Cartridge Capacity (Native) = 30.0GB (1500-ft tape)
- Cartridge Capacity (Compression) = 60.0GB (1500-ft tape)
- Data Rate (Native) = 4.0MB/s
- Data Rate (Compression) = 8.0MB/s
- Attributes provided: 30GB 1/4-inch tape device
- Attributes required: Half-high, autodocking removable media bay and a disk controller in place to interface to this media bay
- For 9407-515: (#9653)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: i5/OS V5R3, or later
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

**(#9793) — Base PCI 2-Line WAN w/Modem:** #9793 is the base feature code for FC#2793, PCI 2-Line WAN w/ Modem. Refer to FC#2793 for a description of the capabilities of FC#9793.

- For 9407-515: (#9793)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Both
  - CSU: Yes

**(#9844) — Base PCI IOP:** #9844 is a base PCI I/O processor that drives PCI IOA adapters in the system unit and in HSL attached PCI or PCI-X I/O expansion towers/units.

A #9844 can drive a maximum of four IOAs, subject to configuration restrictions.

One #9844 is included in the following expansion towers/units:

- #0595
- #5094

- #5095

Two #9844s are included with each #5294.

**Note:** With the availability of V5R4, #9844 is no longer included with #0595, #5094, #5095 and #5294.

- Attributes provided: Ability to drive up to four PCI/PCI-X IOAs
- Attributes required: One PCI/PCI-X slot
- For 9407-515: (#9844)
  - Minimum required: 0
  - Maximum allowed: 1 (Initial order maximum: 1)
  - OS level required: N/A
  - Initial Order/MES/Both/Supported: Initial
  - CSU: N/A

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## Publications

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No publications are shipped with the announced features.

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## Services

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### Global Technology Services

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IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

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## Technical information

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### Specified operating environment

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#### Physical specifications

	Width	Depth	Height	Weight
Model 515				

Rack-mounted drawer	437 mm (17.2 in)	584 mm (23 in)	178 mm (7 in)	43 kg (95 lb)
Stand-alone server	201 mm (7.9 in)	630 mm (23 in)	533 mm (21 in)	43 kg (95 lb)

For installation planning information, refer to the System i planning Web site at

<http://publib.boulder.ibm.com/series/>

Select V5R4, then Site Map, and then Hardware Installation and Use.

## Operating environment

	Model 515
Electrical	
kVA (maximum)	0.789
Rated voltage and frequency	100-127/200-240 V AC@50/60 Hz(+/- .5)
Power consumption (maximum)	750 watts
Thermal output (maximum)	2560 Btu/hr
Noise level (dBa)	
Rack drawer (operating)	6.0 bels
Desk side (operating)	6.8 bels
Inrush and leakage current (mA)	88 ampere 1.2
Recommended operating temperature	5 to 35 degrees C (41 to 95 degrees F)
Relative humidity	8% to 80%(3)
Wet bulb temperature (operating)	23 degrees C (73.4 degrees F)

(3) All tape media used on the 9407 must have a relative humidity range of 20% to 80%.

**Voltage:** Model 515 operates at low-voltage (100 to 127 V ac) or high-voltage (200 to 240 V ac).

The appropriate system power cord is added automatically by the configurator based on the country in which the order is placed. For default power cord, other power cord options, and additional technical planning information, refer to the iSeries planning Web site at

<http://publib.boulder.ibm.com/series/>

Select V5R4, then Site Map, and then Hardware Installation and Use.

**Hardware requirements:** System i model 515 requires i5/OS V5R4, or later.

Other operating systems that run on the System i model 515 are:

- AIX 5L for POWER V5.3, or later
- Red Hat Enterprise Linux AS for POWER Version 4, or later
- SUSE LINUX Enterprise Server 9 for POWER, or later

Some features may require updates.

For additional prerequisite information, visit

[http://www-912.ibm.com/e\\_dir/eServerPrereq.nsf](http://www-912.ibm.com/e_dir/eServerPrereq.nsf)

## Planning information

**Cable orders:** No cable orders required

**Supplies:**

Tape cartridges

- 30GB 1/4-inch Cartridge Tape Units
  - Data cartridges (write and read):**
  - IBM SLR60-37.5GB (24R0146) 37.5GB
  - IBM SLR60-30GB (19P4209) 30GB
- 50GB 1/4-inch Cartridge Tape Units
  - Data cartridges (write and read):**
  - IBM SLR60-37.5GB (24R0146) 37.5GB
  - IBM SLR60-30GB (19P4209) 30GB
- 36 GB DAT72 4-mm tape drives
  - Data cartridges (write and read):**
  - IBM DDS3 Data Cartridge (59H3465) 12GB
  - IBM DDS4 Data Cartridge (59H4456) 20GB
  - IBM DAT72 Data Cartridge (18P7912) 36GB

Cleaning cartridges

- 36 GB DAT72 4-mm tape drives
  - Test and cleaning cartridges**
  - IBM DAT72 Cleaning Cartridge (21F8763)
  - IBM Test Cartridge (59H4457)

All data cartridge capacities shown are uncompressed.

**Sales and support**

You can get assistance, answers to product-related questions, or arrange for a warranty product replacement — with just one call. To locate your nearest source for ordering IBM media products, call the following numbers worldwide:

888-IBM-MEDIA (426-6334) in the U.S. and Canada  
+1-972-881-0733 in Latin America and Asia/Pacific  
+31-433-502-756 in Europe, the Middle East and Africa  
+81-3-3808-8486 in Japan

For additional product information and country-specific phone numbers, visit

<http://www.ibm.com/storage/media>

**Security, auditability, and control**

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System i uses the security and auditability features of IBM i5/OS. Use of these facilities is optional. The security measures supplied by i5/OS are designed to reduce the risk of users changing or destroying data resources, but do not prevent it. The i5/OS security features include the use of passwords, a security option to limit a user to only functions provided by customer-designed menus, and a security option to limit read/write access for files, libraries, and folders during normal operations. To achieve increased security, the i5/OS controls should be combined with physical security, division of duties, and other appropriate measures.

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

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**IBM Electronic Services**

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IBM has transformed its delivery of hardware and software support services to put you on the road to higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems.

To learn how Electronic Services can work for you, visit

<http://www.ibm.com/support/electronic>

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## Terms and conditions

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**IBM credit corporation financing:** Yes

**Warranty period:** One year

**Warranty service:** If required, IBM provides repair or exchange service depending on the types of warranty service specified for the machine. IBM will attempt to resolve your problem over the telephone, or electronically via an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability. If applicable to your product, parts considered customer replaceable units (CRUs) will be provided as part of the machine's standard warranty service.

Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information. This product is covered by the following types of service: CRU and on-site for other selected parts.

**CRU service:** IBM provides replacement CRUs to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM upon your request. CRUs are designated as being either a Tier 1 or a Tier 2 CRU.

**Tier 1 CRU:** Installation of Tier 1 CRUs is your responsibility. If IBM installs a Tier 1 CRU at your request, you will be charged for the installation.

**Tier 2 CRU:** You may install a Tier 2 CRU yourself or request IBM to install it, at no additional charge.

Based upon availability, CRUs will be shipped for next-business-day delivery. IBM specifies, in the materials shipped with a replacement CRU, whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

The following parts have been designated as Tier 1 CRU parts:

- Cache battery
- Covers
- Disk drive backplane
- Disk drive
- DVD drive

- External cables
- Fan
- Fan tray assembly
- Internal cable
- Tape/DVD drive enclosure and backplane
- Memory DIMMs
- Operator panel
- Operator panel cable
- PCI adapters
- Power cord
- Power supply
- Service processor
- Tape drive
- Time of day battery
- Voltage regulator

On-site service: IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

9 hours per day, Monday through Friday, excluding holidays, NBD response

#### **Warranty service upgrades and maintenance service options**

**Warranty service upgrade:** During the warranty period, a warranty service upgrade provides an enhanced level of on-site service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of on-site service you acquired. Service levels are response time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability.

On-site service: IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose. The following service selections are available as a warranty upgrade for your machine.

- IBM on-site repair (IOR), 9 hours per day, Monday through Friday, excluding holidays, NBD response
- IOR, 24 hours per day, 7 days a week

CRUs may be provided as part of the machine's standard warranty CRU service except that you may install a CRU yourself or request IBM installation, at no additional charge, under one of the on-site service levels specified. For additional information on the CRU service, refer to the warranty information.

**Maintenance services:** If required, IBM provides repair or exchange service depending on the types of maintenance service specified for the machine. IBM will attempt to resolve your problem over the telephone or electronically, via an IBM Web site. You must follow the problem determination and resolution procedures that IBM specifies. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of maintenance service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information. The following service selections are available as maintenance options for your

machine type.

**On-site service:** IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

- 9 hours per day, Monday through Friday, excluding holidays, NBD response
- 24 hours per day, 7 days a week

**CRU service:** If your problem can be resolved with a CRU (for example, hard disk drive, tape drive, or CD), and depending upon the maintenance service offerings in your country, IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM upon your request.

Based upon availability, CRUs will be shipped for NBD delivery. IBM specifies, in the materials shipped with a replacement CRU, whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU. You may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

CRUs may be provided as part of the machine's standard maintenance service except that you may install a CRU yourself or request IBM installation, at no additional charge, under any of the on-site service levels specified.

### **Non-IBM parts support**

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Under certain conditions, IBM repairs selected non-IBM parts at no additional charge for machines that are covered under warranty service upgrade or maintenance services.

IBM Service provides hardware problem determination on non-IBM parts (for example, adapter cards, PCMCIA cards, disk drives, and memory) installed within IBM machines covered under warranty service upgrades or maintenance services and provides the labor to replace the failing parts at no additional charge.

If IBM has a Technical Service Agreement with the manufacturer of the failing part, or if the failing part is an accommodations part (a part with an IBM FRU label), IBM may also source and replace the failing part at no additional charge. For all other non-IBM parts, customers are responsible for sourcing the parts. Installation labor is provided at no additional charge, if the machine is covered under a warranty service upgrade or a maintenance service.

**Usage plan machine:** No

**IBM hourly service rate classification:** Two

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

**Field-installable features:** Yes

**Model conversions:** No

**Machine installation:** Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

**Graduated program license charges apply:** Yes

The following processor groups apply for software with graduated charges.

Machine type	Model	Edition	Processor group
9407	515	6010 Model 515 Express Configuration 1	P05
		6011 Model 515 Express Configuration 2	P05
		6021 Model 515 Express Configuration 3	P05
		6018 Model 515 Base Product Configuration 1	P05
		6028 Model 515 Base Product	P05

**Licensed machine code:** IBM Machine Code is licensed for use by a customer on the IBM machine for which it was provided by IBM under the terms and conditions of the IBM License Agreement for Machine Code, to enable the Machine to function in accordance with its specifications, and only for the capacity authorized by IBM and acquired for the customer.

Machine Code may sometimes be referred to as "Licensed Internal Code" or "LIC" in documentation or on the machine with which the Machine Code was delivered. All such code, whether referred to or marked as Machine Code, Licensed Internal Code or LIC is subject to the IBM License Agreement for Machine Code.

Should it become necessary for IBM to make changes to Machine Code, IBM will make the changes available at the System i technical support page on [ibm.com](http://www.ibm.com). If the machine does not function as warranted and your problem can be resolved through your application of Machine Code changes, you are responsible for downloading and installing the designated Machine Code changes as IBM specifies. You may request IBM to install Machine Code changes; however, you may be charged for the installation of such changes.

You can obtain a copy of the agreement at the following Web site or by contacting your IBM representative.

[http://www-1.ibm.com/servers/support/machine\\_warranties/machine\\_code.html](http://www-1.ibm.com/servers/support/machine_warranties/machine_code.html)

Machine using LMC Type Model: 9407-515

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

The educational allowance is 15% for the products in this announcement.

## Prices

### Model

Description	IBM list price(4)	MMC	ESA 24x7	ESA 9x5	CSU
MT 9407 Model 515	\$0	\$26	\$23	\$15	Yes

(4) List price does not include tax or shipping and is subject to change without notice. Reseller prices may vary.

### Features and specify codes

Description	Feature	IBM list price	MMC	ESA 24x7	ESA 9x5	CSU
Bulk Order Indicator	0005	\$ 0				Yes
LPAR Restrict Build Process	0006	0				N/A
Modem	0032	525	\$5	\$5	\$3	Yes
Mirrored System Disk Level	0040	0				Yes
Device Parity Protection-All	0041	0				Yes
Logical Partitioning Specify	0140	0				Yes
Linux Partition Specify	0142	0				Yes
AIX Partition Specify	0145	0				Yes
RISC-to-RISC Data Migration	0205	0				N/A
Renovated by IBM	0272	0				N/A
CSC Specify	0275	0				Yes
CSC Specify	0276	0				Yes
CSC Specify	0277	0				Yes
CSC Specify	0278	0				Yes
CSC Specify	0279	0				Yes
CSC Specify	0280	0				Yes

CSC Specify	0281	0				Yes
CSC Specify	0282	0				Yes
Ext Tape Attached via #5736	0290	0				Yes
Mirrored System-IOA Level	0308	0				Yes
V. 24/EIA232 20-Ft PCI Cable	0348	125				Yes
V. 35 20-Ft PCI Cable	0353	125				Yes
V. 36 20-Ft PCI Cable	0356	125				Yes
X. 21 20-Ft PCI Cable	0359	125				Yes
Operations Console PCI Cable	0367	125				Yes
UPS Factory Integration	0373	0				N/A
HMC Factory Integration	0374	0				N/A
Display Factory Integration	0375	0				N/A
Project Identify Code	0473	0				Yes
Force i5/OS Preload	0496	0				N/A
V5R4 OS, V5R4M0 Machine Code	0532	0				Yes
iSeries Rack	0551	2, 668				Yes
iSeries 25U Rack	0555	1, 999				Yes
Rack Filler Panel Kit	0599	75				Yes
CCEP	0600	0				Yes
Direct Attach-5700	0620	863				Yes
Direct Attach-5701	0621	699				Yes
PCI-X Disk/Tape Ctlr No IOP	0647	587				Yes
#4327 Load Source Specify	0835	0				Yes
Assembled in USA	0983	0				N/A
Modem Cable -- US/Canada	1025	0				Yes
System Unique Identifier	1311	0				Yes
Serial-UPS Conversion Cable	1827	95				Yes
73. 4GB 15k rpm Disk Unit	1897	659				Yes
DVD-ROM	2640	207				Yes
PCI Two-Line WAN IOA	2742	425				Yes
PCI 2-Line WAN w/Modem	2793	800				Yes
PCI Quad Modem IOA	2805	1, 600				Yes
PCI IOP	2844	2, 100				Yes
English U/L DBCS	2917	0				Yes
English	2924	0				Yes
Universal Japanese	2958	0				Yes
70. 56GB 15k rpm Disk Unit	4327	999				Yes
1GB DDR2 Main Storage	4400	550				Yes
2GB DDR2 Main Storage	4474	1, 160				Yes
4GB DDR2 Main Storage	4475	2, 781				Yes
PCI Twinaxial Workstn IOA	4746	750				Yes
1W Server Feat 515 1x8327	4901	0	101	87	58	Yes
2W Server Feat 515 1x8330	4903	0	101	87	58	Yes
Software Preload Required	5000	0				N/A
Customer Solution Center	5001	0				Yes
AS/400 CDSC -- Rochester Mfg	5002	0				N/A
850 Watt Power Supply	5159	417				Yes
Sys Console on Twinax WSC	5540	0				Yes
Sys Console on OP Console	5544	0				Yes
Sys Console On HMC	5550	0				Yes
Sys Console on Thin Console	5552	0				Yes
Sys Console-Ethernet No IOP	5553	0				Yes
5727 Cache + 2 70GB Disk Pkg	5570	2, 499				Yes
5727 Cache + 6 70GB Disk Pkg	5571	4, 499				Yes
4 Disk Slot Exp + Controller	5592	1, 500	72	63	42	Yes
4 Disk Slot Exp + Controller	5593	1, 500	72	63	42	Yes
PCI 1Gbps Ethernet IOA	5700	863				Yes
PCI 1Gbps Ethernet UTP IOA	5701	699				Yes
PCI-X 1Gbps Ethernet-TX IOA	5706	999				Yes
PCI-X 1Gbps Ethernet-SX IOA	5707	1, 322				Yes
PCI-X 10Gbps Ethernet-SR IOA	5721	4, 742				Yes
PCI-X 10Gbps Ethernet-LR IOA	5722	7, 999				Yes
Integrated Cache - 40MB	5727	1, 499				Yes
PCI-X Disk/Tape Ctlr w/IOP	5736	587				Yes
30GB 1/4-Inch Cartridge Tape	5753	4, 000	23	20	13	Yes
PCI-X Disk/Tape Ctlr-No IOP	5775	587				Yes
PCI-X iSCSI HBA Copper	5783	999				Yes
PCI-X iSCSI HBA Fiber	5784	1, 599				Yes
515 Express Configuration 1	6010	7, 995	0	0	0	Yes
515 Express Configuration 2	6011	9, 995	0	0	0	Yes
515 Base Product Config 1	6018	6, 995	0	0	0	Yes
515 Express Configuration 3	6021	21, 995	64	56	37	Yes
515 Base Product Config 2	6028	12, 995	64	56	37	Yes
Opt Front Door for 1.8m Rack	6068	450				Yes

1. 8m Rack Trim Kit	6246	132				Yes
36GB 4mm Tape Unit	6258	948	23	20	13	Yes
14-Ft Int 250V/10A Pwr Cd	6458	0				Yes
14-Ft 125V/15A Power Cord	6460	0				Yes
14-Ft 250V/15A Power Cord	6469	0				Yes
6-Ft 125V/15A Power Cord	6470	0				Yes
6-Ft 250V/15A Power Cord	6487	0				Yes
14-Ft 1PH/48-60A Pwr Cord	6492	200				Yes
6-Ft 250V/15A Power Cord	6497	40				Yes
6-Ft 250V/15A Power Cord	6498	200				Yes
Optional Rack Security Kit	6580	180				Yes
DASD Locking Kit	6585	10				Yes
Modem Tray for 19-Inch Rack	6586	250				Yes
Rear Cover	6587	54				Yes
Disk Slot Filler (Qty 4)	6598	40				Yes
14-Ft 1PH/24-30A Pwr Cord	6654	200				Yes
14-Ft 1PH/24-30A WR Pwr Cord	6655	200				Yes
9Ft IEC 320 C13/14 PDU Cord	6671	17				Yes
5Ft IEC 320 C13/14 PDU Cord	6672	17				Yes
PCI 1Gbps Ethernet IOA	6800	863				Yes
PCI 1Gbps Ethernet UTP IOA	6801	699				Yes
PCI WAN for ECS	6803	800				Yes
Easy-Access Front Cover	7181	0				N/A
Rack Mount	7182	0				Yes
Power Distribution Unit	7188	1,000				Yes
Adjustable Depth Rack Rails	7198	307				Yes
Deskside	7885	0				Yes
Adv Power Virtualization	7966	590				Yes
1. 9GHz Processor	8327	0	0	0	0	No
1. 9GHz Proc 0/2-Way	8330	0	0	0	0	No
Base Proc Activation	8410	0	0	0	0	Yes
Base Proc Activation	8428	0	0	0	0	Yes
30GB 1/4-Inch Cartridge Tape	8753	3,052	23	20	13	N/A
36GB 4mm Tape Unit	9258	0	23	20	13	N/A
Base PCI WAN for ECS	9493	0				Yes
Base Integrated Cache -- 40MB	9510	0				N/A
Base DVD-ROM	9540	0				N/A
Base 1GB Main Storage	9548	0				N/A
Base 2GB Main Storage	9549	0				N/A
Base 70GB 15k rpm Disk Unit	9613	0				N/A
Base 30GB 1/4-Inch Cart Tape	9653	0	23	20	13	N/A
Base PCI 2-Line WAN w/Modem	9793	0				Yes
Base PCI IOP	9844	0				N/A

## Conversions

### Feature conversions

From	To:	Parts returned	Purchase price
5700	0620	No	\$ 0
6800	0620	No	0
5701	0621	No	0
6801	0621	No	0
5736	0647	No	0
5775	0647	No	0
6803	2793	No	0
9493	2793	No	0
4901	4903	Yes	0
0620	5700	No	0
6800	5700	No	0
0621	5701	No	0
6801	5701	No	0
0647	5736	No	0
5775	5736	No	0
0647	5775	No	0
5736	5775	No	0
6010	6021	Yes	8,900
6011	6021	Yes	8,900
6018	6028	Yes	8,900

0620	6800	No	0
5700	6800	No	0
0621	6801	No	0
5701	6801	No	0
2793	6803	No	0
9793	6803	No	0
7885	7182	No	400
9793	9493	No	0
9493	9793	No	0

For ServiceElect (ESA) maintenance service charges, contact IBM Global Services at 888-IBM-4343 (426-4343).

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