

PCI Adapter Placement Reference

Note

Before using this information and the product it supports, be sure to read the general information under "Product Warranties and Notices" included with your system unit.

Fifth Edition (April 1998)

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Handling Static Sensitive Devices

Attention: Static electricity can damage this device and your system unit. To avoid damage, keep this device in its static protective bag until you are ready to install it. To reduce the possibility of electrostatic discharge, follow the precautions listed below.

Electrostatic Discharge Protection

To prevent electrostatic discharge:

- Limit your movement. Movement can cause static electricity to build up around you.
- Handle the device carefully, holding it by its edges or its frame.
- Do not touch solder joints, pins, or exposed printed circuitry.
- Do not leave the device where others can handle and possibly damage the device.
- While the device is still in its anti-static package, touch it to an unpainted metal part of the system unit for at least two seconds. (This drains static electricity from the package and from your body.)
- Remove the device from its package and install it directly into your system unit without setting it down. If it is necessary to set the device down, place it on its static-protective package. (If your device is an adapter, place it component side up.) Do not place the device on your system unit cover or on a metal table.
- Take additional care when handling devices during cold weather as heating reduces indoor humidity and increases static electricity.

About This Book

This book outlines PCI adapter slot placement and adapter support configurations that are specific to your system unit. Not all of the adapters supported in stated maximum configurations, run at per adapter maximum performance.

Note: Peripheral Component Interconnect (PCI) is identified with a 'P' in document figures and in document tables. International Standard Architecture (ISA) and Extended International Standard Architecture (EISA) are identified with an 'I' or with an 'E' respectively in document figures and document tables.

Related Publications

Use this book with your system unit documentation and with your adapter's installation and user's guide to accurately place one or more adapters in your system unit.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

Trademarks

AIX is a registered trademark of International Business Machines Corporation.

POWER GXT110P is a trademark of International Business Machines Corporation.

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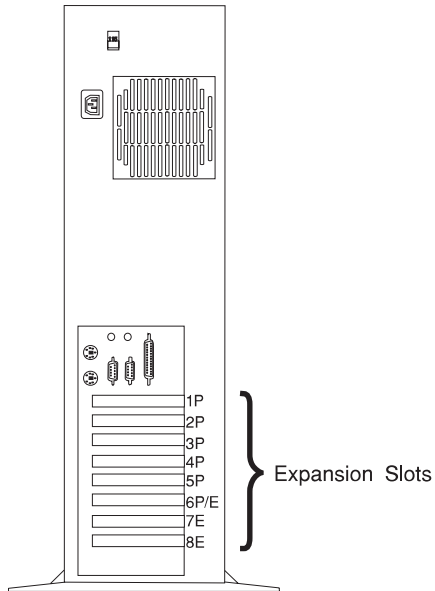
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Chapter 1. PCI Adapter Placement

Machine Type 7024 Models E20, E30



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly and to achieve highest performance. Use the table under “7024 Models E20 and E30 Adapter Placement Guide” on page 1-2, to determine where to install an adapter in your 7024 Model E20 or E30.

If you are running AIX on your system unit, the 7024 Models E20 and E30 support configurations with 0, 1, or 2 graphics adapters for POWER GXT110P, POWER GXT250P, or S15. Windows NT (PowerPC Edition) support only configurations with one graphics adapter.

Use the rear view diagram above to identify slot locations described in the following table.

7024 Models E20 and E30 Adapter Placement Guide

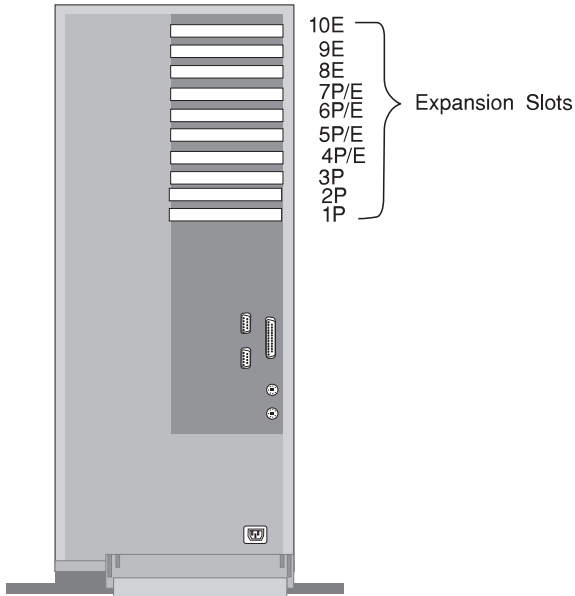
Table 1-1. Machine Type 7024 Models E20, E30

Adapter	AIX	NT
10/100 Mbps PCI Fast EtherLink XL	Slots 3P - 6P	
GXT110P	Slots 1P - 2P	Slots 1P - 2P
GXT250P	Slots 1P - 5P, 6P/E (Max. 4 Per Machine)	Slots 1P - 5P, 6P/E
PCI SSA Multi-Initiator/RAID EL	Slots 3P - 5P, 6P/E (Max. 3 Per Mach. *)	
S15	Slots 1P - 5P, 6P/E	Slots 1P - 5P, 6P/E
SSA 4-Port RAID	Slots 3P - 5P, 6P/E (Max. 3 Per Mach. *)	

Notes:

1. If you are running AIX, any combination of two POWER GXT110P, POWER GXT250P, or S15 is supported on the 7024 Models E20 and E30. Follow the same slot guidelines outlined for single installations.
2. The 7024 Model E20 or E30 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SCSI-2 Fast/Wide PCI RAID
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.
3. * The 7024 Model E20 or E30 supports a maximum of three SSA 4-Port RAID or three PCI SSA Multi-Initiator/RAID EL adapters. If you choose to install both of these adapters in your 7024 Model E20 or E30, the combined total for both adapters must not exceed three.

Machine Type 7025 Model F30



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly and to achieve highest performance. Use the table under “7025 Model F30 Adapter Placement Guide” on page 1-4, to determine where to install an adapter in your 7025 Model F30.

If you are running AIX on your system unit, the 7025 Model F30 supports configurations with 0, 1, or 2 graphics adapters for POWER GXT110P, POWER GXT250P, or S15. Systems running Windows NT (PowerPC Edition) only support configurations with one graphics adapter.

Use the rear view diagram above to identify slot locations described in the following table.

7025 Model F30 Adapter Placement Guide

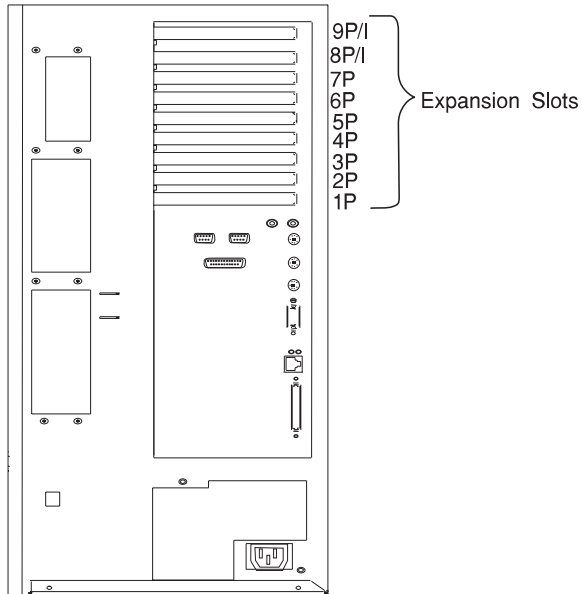
Table 1-2. Machine Type 7025 Model F30

Adapter	AIX	NT
10/100 Mbps PCI Fast EtherLink XL	Slots 4P - 7P	
GXT110P	Slots 1P - 3P	Slots 1P - 3P
GXT250P	Slots 1P - 7P/E (Max. 4 Per Machine)	Slots 1P - 7P/E
PCI SSA Multi-Initiator/RAID EL	Slots 4P/E - 7P/E (Max. 3 Per Mach. *)	
S15	Slots 1P - 7P/E	Slots 1P - 7P/E
SSA 4-Port RAID	Slots 4P/E - 7P/E (Max. 3 Per Mach. *)	
ARTIC960Hx DSP Resource PCI Adapter	Slots 7P/E - 1P (If available, install first adapter in slot 7P/E. Install in descending order from 7P/E to slot 1P.)	

Notes:

1. If you are running AIX, any combination of two POWER GXT110P, POWER GXT250P, or S15 is supported on your 7025 Model F30. Follow the same slot guidelines outlined for single installations.
2. The 7025 Model F30 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SCSI-2 Fast/Wide PCI RAID
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.
3. * The 7025 Model F30 supports a maximum of three SSA 4-Port RAID or three PCI SSA Multi-Initiator/RAID EL adapters. If you choose to install both of these adapters in your 7025 Model F30, the combined total for both adapters must not exceed three.

Machine Type 7025 Model F40



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly at highest performance. Use the table under “7025 Model F40 Single Adapter Placement Guide” on page 1-6 to determine where to install an adapter in your in your 7025 Model F40.

If you are running AIX on your system unit, refer to “7025 Model F40 Multiple Adapter Placement Guide” on page 1-6, to configure two or more adapters in your 7025 Model F40. (Windows NT (PowerPC Edition) does not support more than one graphics adapter in a system unit.)

Use the rear view diagram above to identify slot locations described in the following tables.

7025 Model F40 Single Adapter Placement Guide

Use the following table to identify adapter slot location options for these adapters in your 7025 Model F40.

Adapter	AIX	NT
GXT110P	Slot 3P	Slot 3P
GXT120P	Slots 1P - 9P/I	
GXT250P or GXT255P	Slots 1P - 9P/I (1P - 2P Best)	Slots 1P - 9P/I
GXT500P or GXT550P	Slots 1P - 3P (1P - 2P Best)	
GXT800P	Slots 2P - 3P (2P Best)	
GXT1000	Slots 1P - 3P	
UltimediaVideo Capture	Slots 1P - 9P/I (Max. 1 Per Machine)	

Notes:

1. Best means best performance achieved if installed in this slot.
2. The POWER GXT800P takes the physical space of up to four adapters in the 7025 Model F40.

7025 Model F40 Multiple Adapter Placement Guide

Use the following table to identify slot location combination options for the following adapters in your 7025 Model F40.

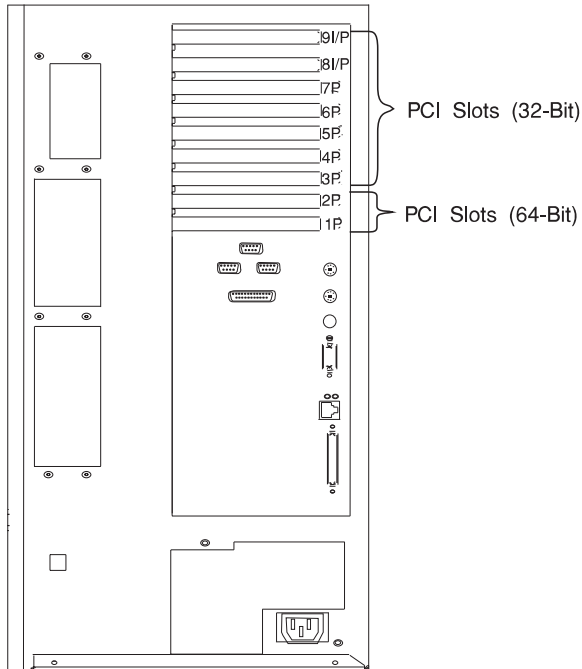
Table 1-4. Machine Type 7025 Model F40

Adapter	AIX	
GXT110P with a GXT120P or GXT250P or GXT255P	Slot 3P Slot 1P - 2P	
GXT110P with a GXT500P or GXT550P	Slot 3P Slot 1P - 2P	
GXT110P with a GXT800P	Slot 3P Slot 2P	
GXT110P with a GXT1000	Slot 3P Any slot	
GXT120P or GXT250P or GXT255P with a GXT120P or GXT250P or GXT255P	Any slot Any slot (1P - 2P Best)	
GXT120P or GXT250P or GXT255P with a GXT500P or GXT550P	Any slot (1P - 2P Best) Slots 1P - 3P (1P - 2P Best)	
GXT120P or GXT250P or GXT255P with a GXT800P	Slots 3P - 9P/I Slot 2P only (Best)	OR Slot 4P - 9P/I Slot 3P only
GXT120P or GXT250P or GXT255P with a GXT1000	Any slot (1P - 2P Best) Any slot	
PCI SSA Multi-Initiator/RAID EL with a PCI SSA Multi-Initiator/RAID EL with a PCI SSA Multi-Initiator/RAID EL	Slot 1P or 2P Slot 3P Slot 4P, or 5P, or 6P, or 7P, 8P/I, or 9P/I (Max. 3 Per Machine *)	
SSA 4-Port RAID with a SSA 4-Port RAID with a SSA 4-Port RAID	Slot 1P or 2P Slot 3P Slot 4P, or 5P, or 6P, or 7P, 8P/I, or 9P/I (Max. 3 Per Machine *)	

Notes:

1. Best means best performance achieved if installed in this slot.
2. The POWER GXT800P takes the physical space of three adapters in the 7025 Model F40.
3. Up to four GXT250P adapters or GXT255P adapters are supported in any combination.
4. Only one UltimediaVideo Capture adapter is supported per machine.
5. The 7025 Model F40 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SCSI-2 Fast/Wide PCI RAID
 - SysKconnect SK-NET FDDI-LP DAS PCI
 - SysKconnect SK-NET FDDI-LP SAS PCI
 - SysKconnect SK-NET FDDI-UP SAS PCI.
6. * The 7025 Model F40 supports a maximum of three SSA 4-Port RAID or three PCI SSA Multi-Initiator/RAID EL adapters. If you choose to install both of these adapters in your 7025 Model F40, the combined total for both adapters must not exceed three.
7. The 7025 Model F40 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of seven:
 - ARTIC960Hx 4-Port Selectable PCI Adapter
 - ARTIC960Hx 4-Port T1/E1 PCI Adapter
 - ARTIC960Hx DSP Resource PCI Adapter
 - Digital Trunk Quad PCI.

Machine Type 7025 Model F50



(System Unit Rear View with Numbered Slots)

Note: The Machine Type 7025 Model F50 has three PCI buses, with Slots 1 - 2 on one bus, Slots 3 - 5 on a bus, and Slots 6 - 9 on a bus.

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly at highest performance. Use the table under “7025 Model F50 Adapter Placement Guide” on page 1-10 to determine where to install these adapters in your 7025 Model F50.

Use the rear view diagram above to identify slot locations described in the following table.

7025 Model F50 Adapter Placement Guide

Use the following table to identify adapter slot locations for these adapters in your 7025 Model F50.

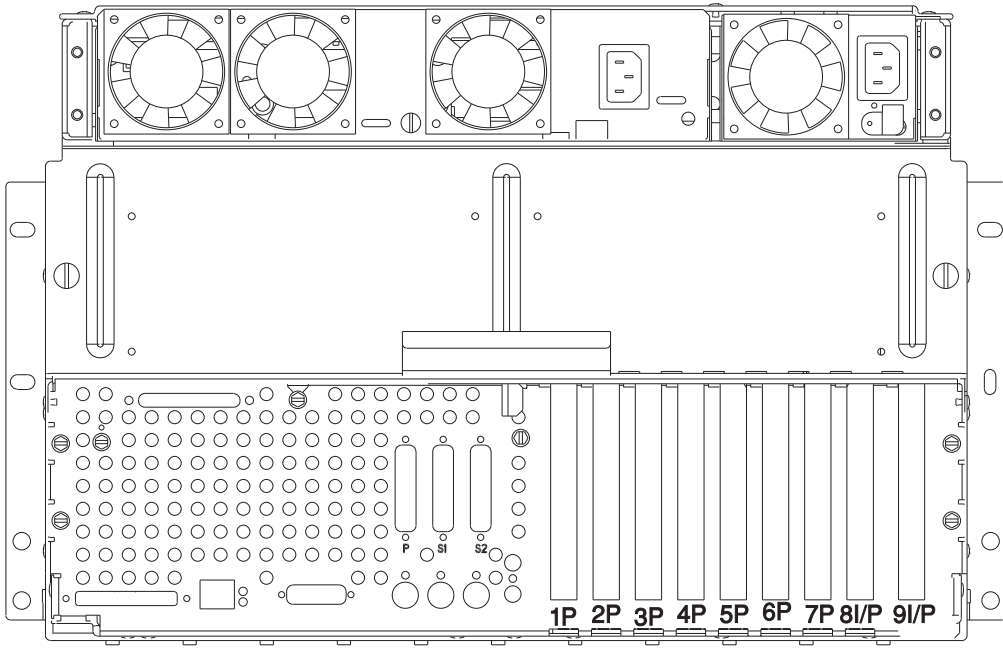
Adapter	Usage
GXT110P	Slot 3P, 4P, or 5P (Max. 2 Per Machine, see note 1 below)
GXT120P	Slots 1P - 9P (Max. 2 Per Machine, see note 1 below)
GXT800P	Slot 3P (Max. 1 Per Machine, see note 1 below) Note: Slots 1P, 2P, and 4P cannot be used when a GXT800P is installed in slot 3P.
PCI SSA Multi-Initiator/RAID EL	(Max. 4 Per Machine, 2 per bus)
Digital Trunk Quad PCI	If less than 2GB of system memory is installed, a maximum of 2 adapters per machine in any slot. If more than 2GB of system memory is installed, a maximum of 2 Digital Trunk Quad PCI adapters per machine: <ul style="list-style-type: none">- Max. of one in slots 1 or 2- Max. of 2 in slots 3, 4, or 5- Max. of 1 in slots 6, 7, 8, or 9.

Notes:

1. The 7025 Model F50 supports combinations of the GXT110P, GXT120P and the GXT800P adapters up to a maximum of two adapters total per machine.
2. The 7025 Model F50 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four per system, or two per PCI bus:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SCSI-2 Fast/Wide PCI RAID
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.

3. The 7025 Model F50 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of seven:
- ARTIC960Hx 4-Port Selectable PCI Adapter
 - ARTIC960Hx 4-Port T1/E1 PCI Adapter
 - ARTIC960Hx DSP Resource PCI Adapter
 - Digital Trunk Quad PCI.

Machine Type 7026 Model H10



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly at highest performance. Use the table under “7026 Model H10 Single Adapter Placement Guide” on page 1-13 to determine where to install an adapter in your 7026 Model H10.

Refer to “7026 Model H10 Multiple Adapter Placement Guide” on page 1-14, to install two or more adapters in your 7026 Model H10.

Use the rear view diagram above to identify slot locations described in the following tables.

7026 Model H10 Single Adapter Placement Guide

Use the following table to identify adapter slot location options for the following adapters in your 7026 Model H10.

Adapter	Usage
GXT110P	Slot 3P
GXT120P	Slots 1P - 9P

7026 Model H10 Multiple Adapter Placement Guide

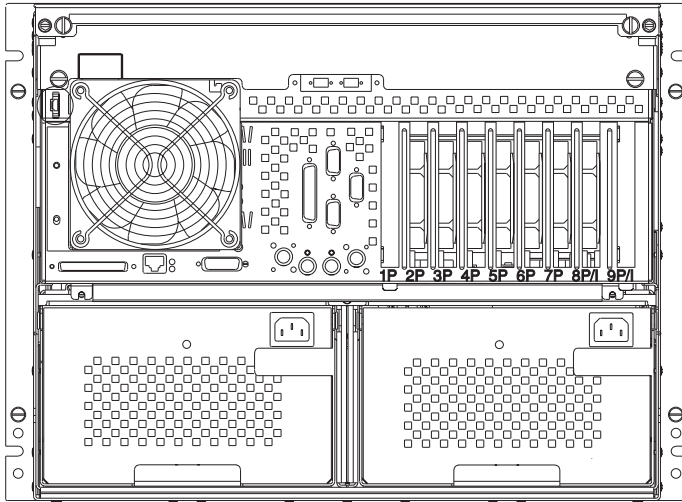
Use the following table to identify slot locations for multiple adapters in your 7026 Model H10.

Adapter	Usage
PCI SSA Multi-Initiator/RAID EL with a PCI SSA Multi-Initiator/RAID EL with a PCI SSA Multi-Initiator/RAID EL	Slot 1P or 2P Slot 3P Slot 4P, or 5P, or 6P, or 7P, or 8I/P, or 9I/P (Max. 3 per Machine *)
SSA 4-Port RAID with a SSA 4-Port RAID with a SSA 4-Port RAID	Slot 1P or 2P Slot 3P Slot 4P, or 5P, or 6P, or 7P, or 8I/P, or 9I/P (Max. 3 per Machine *)

Notes:

1. The 7026 Model H10 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SCSI-2 Fast/Wide PCI RAID
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.
2. * The 7026 Model H10 supports a maximum of three SSA 4-Port RAID or three PCI SSA Multi-Initiator/RAID EL adapters. If you choose to install both of these adapters in your 7026 Model H10, the combined total for both adapters must not exceed three.

Machine Type 7026 Model H50



(System Unit Rear View with Numbered Slots)

Note: The Machine Type 7026 Model H50 has three PCI buses, with Slots 1 - 2 on one bus, Slots 3 - 5 on a bus, and Slots 6 - 9 on a bus.

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly at highest performance. Use the table under “7026 Model H50 Adapter Placement Guide” on page 1-16 to determine where to install these adapters in your 7026 Model H50.

Use the rear view diagram above to identify slot locations described in the following tables.

7026 Model H50 Adapter Placement Guide

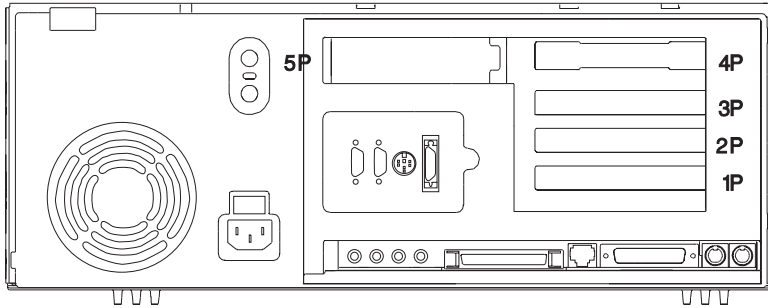
Use the following table to identify adapter slot location options for the following adapters in your 7026 Model H50.

Adapter	Usage
GXT120P	Slots 1P - 9P/I (Max. 2 per Machine)
PCI SSA Multi-Initiator/RAID EL	Slots 1P, 4P, 7P, 9P/I (Max. 4 Per Machine)
Digital Trunk Quad PCI	<p>If less than 2GB of system memory is installed, a maximum of 2 adapters per machine in any slot.</p> <p>If more than 2GB of system memory is installed, a maximum of 2 Digital Trunk Quad PCI adapters per machine:</p> <ul style="list-style-type: none">- Max. of one in slots 1 or 2- Max. of 2 in slots 3, 4, or 5- Max. of 1 in slots 6, 7, 8, or 9.

Notes:

1. The Digital Trunk Quad PCI adapter MAY NOT be plugged into a slot adjacent to a PCI SSA Multi-Initiator/RAID EL.
2. A maximum of two GXT120P adapters can be used in the 7026 Model H50.
3. The 7026 Model H50 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four per system or two per PCI Bus:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SCSI-2 Fast/Wide PCI RAID
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.
4. The 7026 Model H50 supports any combination of the following adapters, but that COMBINATION cannot exceed a total of seven:
 - ARTIC960Hx 4-Port Selectable PCI Adapter
 - ARTIC960Hx 4-Port T1/E1 PCI Adapter
 - ARTIC960Hx DSP Resource PCI Adapter
 - Digital Trunk Quad PCI.

Machine Type 7043 Model 140



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly at highest performance. Use the table under “7043 Model 140 Single Adapter Placement Guide” on page 1-18 to determine where to install an adapter in your system unit.

If you are running AIX, refer to “7043 Model 140 Multiple Adapter Placement Guide” on page 1-19 to install two or more adapters in your 7043 Model 140. Windows NT (PowerPC Edition) does not support more than one graphics adapter in a system unit.

Use the rear view diagram above to identify slot locations described in the following tables.

7043 Model 140 Single Adapter Placement Guide

Use the following table to identify specific slot locations for the following adapters in your 7043 Model 140.

Table 1-9. Machine Type 7043 Model 140

Adapter	AIX	NT
2-Port Multiprotocol PCI	Slots 3P, 4P, 5P	
ARTIC960Hx 4-Port Selectable PCI Adapter	Slots 2P, 3P, 4P	
ARTIC960Hx 4-Port T1/E1 PCI Adapter	Slots 2P, 3P, 4P	
ARTIC960Hx DSP Resource PCI Adapter	Slots 2P, 3P, 4P	
Digital Trunk Quad PCI	Slots 2P, 3P, 4P	
GXT110P	Slots 1P - 2P	Slots 1P - 2P
GXT120P	Slots 1P - 5P	
GXT250P or GXT255P	Slots 1P - 5P	Slots 1P - 2P
GXT500P or GXT550P	Slot 2P	
GXT800P	Slot 2P	
GXT1000	Slots 1P - 2P	
PCI SSA Multi-Initiator/RAID EL	Slot 2P	
SSA 4-Port RAID	Slot 2P	
Single-Ended Ultra SCSI	Slot 5P	
UltimediaVideo Capture	Slots 1P, 2P, 3P, and 4P	

Note: The POWER GXT800P takes the physical space of three adapters in the 7043 Model 140.

7043 Model 140 Multiple Adapter Placement Guide

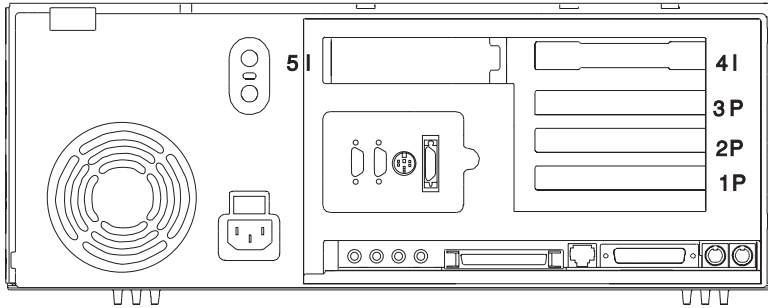
Use the following table to identify adapter location combination options for these adapters in your 7043 Model 140.

<i>Table 1-10. Machine Type 7043 Model 140</i>		
Adapter	AIX	
GXT110P with a GXT120P or GXT250P or GXT255P	Slot 1P Slot 2P	OR Slot 2P Slot 1P
GXT110P with a GXT500P or GXT550P	Slot 1P Slot 2P	
GXT110P with a GXT800P	Slot 1P Slot 2P	
GXT110P with a GXT1000	Slot 1P Slot 2P	OR Slot 2P Slot 1P
GXT120P or GXT250P or GXT255P with a GXT120P or GXT250P or GXT255P	Slot 1P - 5P Slot 1P - 5P	
GXT120P or GXT250P or GXT255P with a GXT500P or GXT550P	Slot 1P Slot 2P	
GXT120P or GXT250P or GXT255P with a GXT800P	Slot 1P Slot 2P	
UltimediaVideo Capture with a GXT800P	Slot 1P Slot 2P	
GXT120P or GXT250P or GXT255P with a GXT1000	Slot 1P Slot 2P	OR Slot 2P Slot 1P

Notes:

1. The POWER GXT800P takes the physical space of three adapters in the 7043 Model 140.
2. A maximum of two 10/100 Mbps Ethernet PCI adapters can be used in the 7043 Model 140.

Machine Type 7043 Model 240



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly and to achieve highest performance. Use the table under “7043 Model 240 Single Adapter Placement Guide” on page 1-22 to determine where to install an adapter in your system unit.

If you are running AIX, refer to “7043 Model 240 Multiple Adapter Placement Guide” on page 1-23, to install adapter combinations for your 7043 Model 240. Windows NT (PowerPC Edition) does not support more than one graphics adapter in a system unit.

Use the rear view diagram above to identify slot locations described in the following tables.

7043 Model 240 Single Adapter Placement Guide

Use the following table to identify slot location options for the following adapters in your 7043 Model 240.

Adapter	AIX	NT
GXT110P	Slot 1P, Slot 3P	Slot 1P, Slot 3P
GXT120P	Slot 1P - 3P	
GXT250P or GXT255P	Slots 1P - 3P (2P Best)	Slots 1P - 3P
GXT500P or GXT550P	Slot 2P	
GXT800P	Slot 2P	
GXT1000	Slots 1P - 3P (2P Best)	
PCI SSA Multi-Initiator/RAID EL	Slots 2P - 3P	
SSA 4-Port RAID	Slots 2P - 3P	
UltimediaVideo Capture	Slots 1P, 2P, or 3P (Max. 1 Per Machine)	

Notes:

1. Best means best performance achieved if installed in this slot.
2. The POWER GXT800P takes the physical space of three adapters in the 7043 Model 240.

7043 Model 240 Multiple Adapter Placement Guide

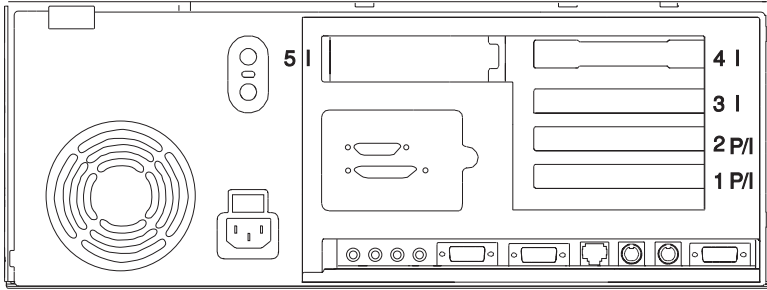
Use the following table to identify slot location combination options for the following adapters in your 7043 Model 240.

<i>Table 1-12. Machine Type 7043 Model 240</i>			
Adapter		AIX	
GXT110P with a GXT120P or GXT250P or GXT255P	Slot 1P	OR	Slot 3P
	Slot 2P Best or 3P		Slots 2P Best or 1P
GXT110P with a GXT500P or GXT550P		Slot 1P, Slot 3P Slot 2P	
GXT110P with a GXT800P		Slot 1P Slot 2P	
GXT110P with a GXT1000	Slot 1P	OR	Slot 3P
	Slot 2P Best or 3P		Slots 2P Best or 1P
GXT120P or GXT250P or GXT255P with a GXT120P or GXT250P or GXT255P		Slots 1P - 3P Slots 1P - 3P (Slot 2P Best)	
GXT120P or GXT250P or GXT255P with a GXT500P or GXT550P		Slots 1P, Slot 3P Slot 2P	
GXT120P or GXT250P or GXT255P with a GXT800P		Slot 1P Slot 2P	
GXT120P or GXT250P or GXT255P with a GXT1000	Slot 2P Best	OR	Slot 3P
	Slots 1P or 3P		Slot 2P Best or 3P
GXT120P or GXT250P or GXT255P with a 2-Port Multiprotocol PCI	Slot 2P Best	OR	Slot 3P
	Slots 1P or 3P		Slot 2P
UltimediaVideo Capture with a GXT800P		Slot 1P Slot 2P	

Notes:

1. Best means best performance achieved if installed in this slot.
2. The POWER GXT800P takes the physical space of three adapters in the 7043 Model 240.
3. A maximum of two 10/100 Mbps Ethernet PCI adapters can be used in the 7043 Model 240.

Machine Type 7248 Models 100, 120, or 132



(System Unit Rear View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly at highest performance. Use the table under “7248 Models 100, 120, or 132 Single Adapter Placement Guide” on page 1-26 to determine where to install an adapter in your 7248 Models 100, 120, or 132.

If you are running AIX, refer to “7248 Models 100, 120, or 132 Multiple Adapter Placement Guide” on page 1-27, to install two adapters in your 7248 Models 100, 120, or 132. Windows NT (PowerPC Edition) does not support more than one graphics adapter in a system unit.

Use the rear view diagram above to identify slot locations described in the following tables.

7248 Models 100, 120, or 132 Single Adapter Placement Guide

Use the following table to identify slot locations for the following adapters in the 7248 Models 100, 120, or 132.

The 7248 Models 100, 120, or 132

Adapter	AIX	NT
GXT150P	Slots 1P/I - 2P/I	Slots 1P/I - 2P/I
GXT250P or GXT255P	Slots 1P/I - 2P/I	Slots 1P/I - 2P/I
GXT1000	Slots 1P/I - 2P/I	
S15	Slots 1P/I - 2P/I	Slots 1P/I - 2P/I
UltimediaVideo Capture	Slots 1P/I - 2P/I (Max. 1 Per Machine)	

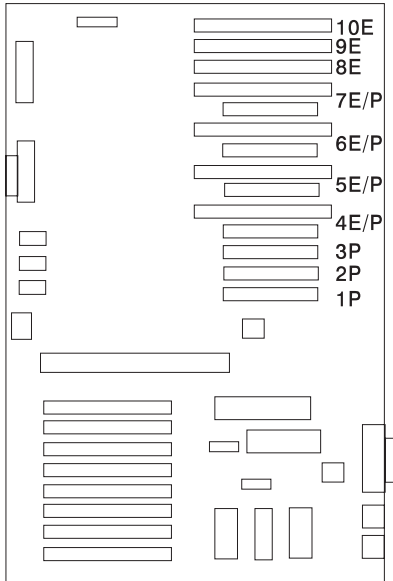
7248 Models 100, 120, or 132 Multiple Adapter Placement Guide

<i>Table 1-14. Machine Type 7248 Models 100, 120, or 132</i>		
Adapter	AIX	
GXT150P with a GXT250P or GXT255P	Slot 1P	OR
	Slot 2P	
S15 with a GXT150P	Slot 1P	OR
	Slot 2P	
S15 with a GXT250P or GXT255P	Slot 1P	OR
	Slot 2P	
GXT1000 with a GXT150P	Slot 1P	OR
	Slot 2P	
GXT1000 with a GXT250P or GXT255P	Slot 1P	OR
	Slot 2P	
GXT1000 with a S15	Slot 1P	OR
	Slot 2P	

Notes:

1. Best means best performance achieved if installed in this slot.
2. This system supports two GXT150P, two GXT250P or two GXT255P in adapter slots 1P and 2P.

Machine Type 7317 Model F3L



(System Board View with Numbered Slots)

Adapter Placement

Some adapters must be placed in specific system unit slots to function correctly and to achieve highest performance. Use the table under “7317 Model F3L Adapter Placement Guide” on page 1-29 to determine where to install an adapter in your 7317 Model F3L.

If you are running AIX on your system unit, the 7317 Model F3L supports configurations with 0, 1, or 2 graphics adapters for POWER GXT110P or S15. Systems running Windows NT (PowerPC Edition) only support configurations with one graphics adapter.

Use the rear view diagram above to identify slot locations described in the following table.

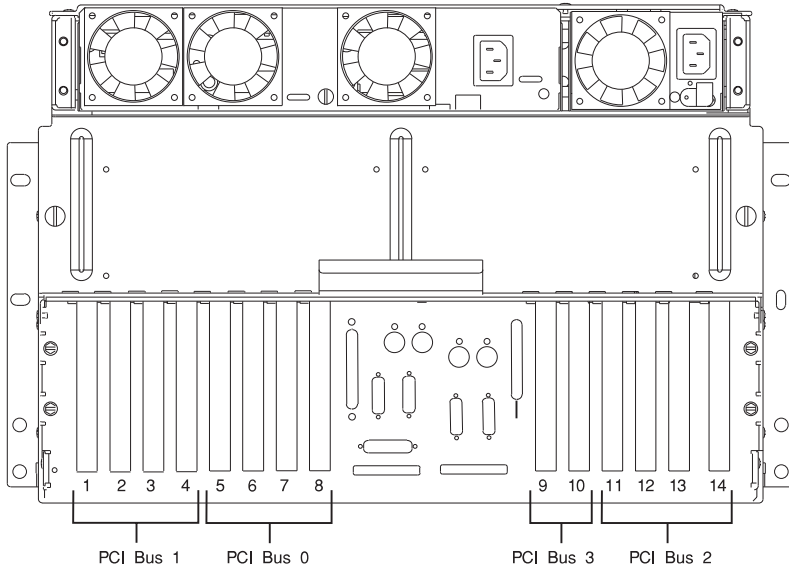
7317 Model F3L Adapter Placement Guide

Adapter	AIX	NT
10/100 Mbps PCI Fast EtherLink XL	Slots 4P - 7P	
GXT110P	Slots 1P - 3P	Slots 1P - 3P
PCI SSA Multi-Initiator/RAID EL	Slots 4E/P - 7E/P (Max. 3 Per Mach. *)	
S15	Slots 1P - 7E/P	Slots 1P - 7E/P

Notes:

1. If you are running AIX, any combination of two POWER GXT110P or S15 is supported on your 7317 Model F3L. Follow the same slot guidelines outlined for single installations.
2. The 7317 Model F3L supports any combination of the following adapters, but that COMBINATION cannot exceed a total of four:
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - 10/100 Mbps Ethernet PCI
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.
3. The 7317 Model F3L supports any combination of the following adapters, but that COMBINATION cannot exceed a total of seven:
 - ARTIC960Hx 4-Port Selectable PCI Adapter
 - ARTIC960Hx 4-Port T1/E1 PCI Adapter
 - ARTIC960Hx DSP Resource PCI Adapter
 - Digital Trunk Quad PCI.

Model S70



(I/O Drawer Rear View with 14 Slots and 4 PCI Buses)

Note: Each drawer has four PCI buses per Drawer: Slots 1-4 (PCI Bus 1), 5-8 (PCI Bus 0), 9-10 (PCI Bus 3), 11-14 (PCI Bus 2). Slots 1, 5, 9, 10 and 14 are 64-bit slots. Remaining slots are 32-bit. The 32-bit adapters also function in the 64-bit slots.

Adapter Placement

Some adapters must be placed in specific I/O drawer slots to function correctly and to achieve highest performance. Refer to the “Model S70 Adapter Placement Guide” on page 1-31, to determine where to install adapters in your S70.

The Model S70 also organizes adapter placement within the four PCI buses (in each of its I/O Drawers) to further optimize performance. The bus organization and the rules that define S70 organization requirements are found in “Model S70 Adapter Configuration Guide” on page 1-32.

Model S70 Adapter Placement Guide

Use the following table to identify placement of the following adapter in your S70.

Adapter	Usage
GXT120P	Any slot *
PCI SSA Multi-Initiator/RAID EL	Slots as defined in the notes below. **
SCSI-2 Fast/Wide PCI RAID	Slots 1-4, 10-14 ***

Notes:

1. For additional information, go to “Model S70 Adapter Configuration Guide” on page 1-32.
2. * In a Fast and Wide SCSI configuration, the Model S70's first I/O Drawer (Drawer 0) reserves slots 2, 8, and 9 for a SCSI adapter, the Service Processor, and another SCSI adapter respectively. For details, go to “Model S70 Configuration Details” on page 1-35.

In an Ultra SCSI configuration, the Model S70's first I/O Drawer (Drawer 0) reserves slots 6, 7, 8, and 13 for two Ultra SCSI adapters, the Service Processor, and another Ultra SCSI adapter respectively. For details, go to “Model S70 Configuration Details” on page 1-35.
3. ** The use of the PCI SSA Multi-Initiator/RAID EL in the Model S70 I/O Drawer limits the system usage to a 28°C (82°F) environment maximum.

In the primary I/O drawer, slots 1, 3, 10, 12, or 14 support PCI SSA Multi-Initiator/RAID EL adapters.

In secondary I/O drawers, slots 1, 3, 5, 7, 10, 12, or 14 support PCI SSA Multi-Initiator/RAID EL adapters.
4. *** In any Model S70 I/O Drawer, slot 9 does not support the SCSI-2 Fast/Wide PCI RAID or any other long PCI adapter with backside components. In the Model S70 Primary I/O Drawer, slots 1-4 and 10-14 (only) support SCSI-2 Fast/Wide PCI RAID adapters.

Model S70 Adapter Configuration Guide

Use the following **three tables** to insure you do not exceed maximum configuration options when you organize your S70 I/O drawers. The information in these tables has been verified in system testing performed using maximum configurations.

Adapter	Per I/O Drawers	Per System
10/100 Mbps PCI Fast EtherLink XL	4 *, 1 Per Bus	12 **
10/100 Mbps Ethernet PCI	4 *, 1 Per Bus	12 **
155 TURBOWAYS ATM PCI MMF	4 *, 1 Per Bus	12 **
155 TURBOWAYS ATM PCI UTP	4 *, 1 Per Bus	12 **
ARTIC960Hx 4-Port Selectable PCI Adapter	4, 1 Per Bus	7 **
ARTIC960Hx 4-Port T1/E1 PCI Adapter	4, 1 Per Bus	7 **
SCSI-2 Fast/Wide PCI RAID	4 *, 1 Per Bus	12 **
SysKonnnect SK-NET FDDI-LP SAS PCI	4 *, 1 Per Bus	12 **
SysKonnnect SK-NET FDDI-LP DAS PCI	4 *, 1 Per Bus	12 **
SysKonnnect SK-NET FDDI-UP SAS PCI	4 *, 1 Per Bus	12 **

Notes:

1. *Install only ONE of the adapters (from the adapters marked with an * in the above table) per PCI bus. Do not exceed a maximum of FOUR of the adapters marked with an * IN THIS TABLE per drawer.
2. **Maximum installed number of ONE of the adapters FROM THIS TABLE. When adapters FROM THIS TABLE are used in mixed combinations, the maximum number installed per system is 16.

<i>Table 1-18. Model S70 Adapter Configuration</i>		
Adapter	Per I/O Drawers	Per System
PCI SSA Multi-Initiator/RAID EL	7 **, 1-2 Per Bus	16 **

Notes:

1. Take the blue plastic adapter guide off your PCI SSA Multi-Initiator/RAID EL adapter before you install it in your S70 by removing the screws that attach it. (Save the plastic guide if you plan to install this adapter in another machine type.)
2. **Install only TWO PCI SSA Multi-Initiator/RAID EL adapters per single PCI bus or one PCI SSA Multi-Initiator/RAID EL and one adapter from the following list. (The latter combination decreases the maximum PCI SSA Multi-Initiator/RAID EL per drawer.):
 - 155 TURBOWAYS ATM PCI MMF
 - 155 TURBOWAYS ATM PCI UTP
 - 10/100 Mbps PCI Fast EtherLink XL
 - ARTIC960Hx 4-Port Selectable PCI Adapter
 - ARTIC960Hx 4-Port T1/E1 PCI Adapter
 - SCSI-2 Fast/Wide PCI RAID
 - SysKonnnect SK-NET FDDI-LP DAS PCI
 - SysKonnnect SK-NET FDDI-LP SAS PCI
 - SysKonnnect SK-NET FDDI-UP SAS PCI.

When you use the following table (Table 1-19) to plan your system configuration totals, be sure to adhere to the specific guidelines outlined in Table 1-17 on page 1-32 and Table 1-18 on page 1-33.

<i>Table 1-19. Model S70 Adapter Configuration</i>		
Adapter	Per I/O Drawers	Per System
2-Port Multiprotocol PCI	9 Total	18 Total
8-Port Asynchronous PCI	8 Total	8 Total
128-Port Asynchronous PCI	8 Total	8 Total
Auto LANstreamer Tokenring	9 Total	24 Total
Ethernet PCI	9 Total	24 Total
GXT120P * or Eicon ISDN DIVA Pro PCI S/T	1 Total	1 Total
(Total of) PCI SSA Multi-Initiator/RAID EL and PCI SCSI-2 F/W Differential and PCI SCSI-2 F/W Single-Ended and PCI Differential Ultra SCSI and PCI Single Ended Ultra SCSI and SCSI-2 Fast/Wide PCI RAID	10 Total	40 Total

Note: * The manufacturer strongly recommends you locate your GXT120P graphics adapter in the primary I/O drawer. This placement provides you with the maximum amount of diagnostic feedback if your system encounters errors.

Model S70 Configuration Details

- The recommended location for the boot device (SCSI or Network) and graphics adapter is within the primary I/O drawer (Drawer 0). This configuration provides service personnel with the maximum amount of diagnostic information if your system encounters errors in the boot sequence.
- Consider placing the AIX rootvg volume group in the primary I/O drawer. This allows AIX to boot if other I/O drawers are found off-line during boot.
- The default Boot Drive is in the lowest location in the center bay six-pack of the primary SCSI I/O drawer. If a boot source other than the internal SCSI disk is configured, the supporting SCSI adapter must also be in the primary I/O drawer.
- SCSI-2 disk bays in an I/O drawer are connected and driven by a single SCSI adapter, installed in **slot 9**. Ultra SCSI disk bays are each driven from separate Ultra SCSI adapters. Slot 13 drives the default boot device. Slot 6 drives the second Ultra SCSI disk bay. These adapters are optional on secondary I/O drawers.
- SCSI-2 Media bays in an I/O drawer are connected and driven by a single SCSI adapter, installed in **slot 2**. Ultra systems have the media bay driven from Slot 7. This adapter is optional on secondary I/O drawers.
- The Service Processor must occupy **slot 8** of the primary I/O drawer.
- The SCSI-2 Fast/Wide PCI RAID adapter installed in the primary SCSI I/O drawer can only be connected to external devices. The SCSI RAID Adapter installed in secondary I/O drawers may be connected to internal disk bays.
- When possible, it is suggested that you place the PCI SSA Multi-Initiator/RAID EL and the SCSI-2 Fast/Wide PCI RAID on their own buses.
- Maximum limitations exist on adapters and devices that are specific to the adapter or device and are not interaction limits with others. This information can be found in the product sales manual.

Chapter 2. POWER GXT500P and POWER GXT550P Support Configurations

The POWER GXT500P and POWER GXT550P graphics adapters support Machine Types 7025 and 7043. Nevertheless, the adapters are not interchangeable within all of these machine types. If you install one of these adapters in an unsupported adapter-machine combination, it may appear to function properly. However, unsupported adapter-machine combinations experience intermittent problems. The information in this chapter guides you through a process to determine if your POWER GXT500P or your POWER GXT550P is compatible with the system unit in which you would like to install it.

System Unit	Device Specific (Z1) for GXT500P or GXT550P	Supported Slots
Machine Type 7043 Model 140	T or C	2
Machine Type 7043 Model 240	0 or C	2
Machine Type 7025 Model F40	0 or C	1, 2, 3

Find your adapter device driver name. Use this information to find the Device Specific Code (Z1) listed by machine type in the above table. Check the table to ensure that your adapter is used in your machine type and that it is in a supported slot.

Verify Adapter Placement and Part Number

1. To find your adapter device name, type:

```
lsdisp
```

Your device name (for example `mint0`) appears under the heading `DEV_NAME`.

Note: You must type your specific device driver name after the `-l` in the following instruction. In this instruction, `mint0` is an example of a device driver name.

2. To find your adapter part number, type:

```
lscfg -v -lmint0
```

The following is an example of data from `lscfg`:

```
mint0          04-02          GXT550P Graphics Adapter

Part Number .....040H7745
EC Level .....00D74509
Serial Number .....00000000
FRU Number .....040H4962
Manufacturer .....IBM97N
Device Driver Level .....00
Diagnostic Level .....00
Displayable Message .....GXT550P
Loadable Microcode Level ....0000
ROS Level and ID .....0000
Device Specific .(Z0) .....84808084C0C0C0C0
Device Specific .(Z1) .....0
```

3. Find the Device Specific (Z1) row at the end of the above screen. Verify that this code (for example, 0) is consistent with your system unit as shown in Table 2-1 on page 2-1.
4. Verify slot location by reading the last two digits of the header, 04-02. The 02 tells you the adapter is in slot 2. Go to Table 2-1 on page 2-1 to verify the slot location is supported.
5. Refer to your adapter installation guide for additional troubleshooting measures.

Chapter 3. POWER GXT800P Support Configurations

The POWER GXT800P graphics adapters (with base memory or with base memory and texture) support Machine Types 7025 and 7043. Nevertheless, the adapters are not interchangeable within all of these machine types. If you install one of these adapters in an unsupported adapter-machine combination, it may appear to function properly. However, unsupported adapter-machine combinations experience intermittent problems. The information in this chapter guides you through a process to determine if your POWER GXT800P is compatible with the system unit in which you would like to install it.

Table 3-1. Support Configurations

System Unit	Device Specific (Z1) for GXT800P	Supported Slots
Machine Type 7043 Model 140	T or C	2
Machine Type 7043 Model 240	0 or C	2
Machine Type 7025 Model F40	0 or C	2, 3
Machine Type 7025 Model F50	0 or C	3

Find your adapter device driver name. Use this information to find the Device Specific Code (Z1) listed by machine type in the above table. Check the table to insure that your adapter is used in your machine type and that it is in a supported slot.

Verify Adapter Placement using Device Name

1. To find your adapter device name, type:

```
lsdisp
```

Your device name (for example `smint0`) will appear under `DEV_NAME`.

Note: You must type your specific device driver name after the `-l` in the following instruction. In this instruction, `smint0` is an example of a device driver name.

2. To find your adapter device specific code, type:

```
lscfg -v -lsmint0
```

The following is an example of data from `lscfg`:

```
smint0      04-02      GXT800P Graphics Adapter

Part Number .....039H8699
EC Level .....00D74274
Serial Number .....00000000
FRU Number .....039H8700
Manufacturer .....IBM97N
Device Driver Level .....00
Diagnostic Level .....00
Displayable Message .....GXT800P
Loadable Microcode Level ....0000
ROS Level and ID .....0000
Device Specific .(Z0) .....84808084C0C0C0C0
Device Specific .(Z1) .....0
```

3. Find the Device Specific (Z1) row at the end of the above screen. Verify that this code (for example, 0) and the slot number are consistent with your system unit as shown in Table 3-1 on page 3-1.
4. Verify slot location by reading the last two digits of the header, 04-02. The 02 tells you the adapter is in slot 2. Go to Table 3-1 on page 3-1 to verify the slot location is supported.
5. Refer to your adapter installation guide for additional troubleshooting measures.

Reader's Comments — We'd Like to Hear From You

PCI Adapter Placement Reference

Part Number: 07L8813

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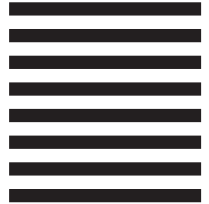
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