



# FUJITSU PCI GigabitEthernet 3.0 Update1 for Solaris™ Operating System

## User's Guide



**FUJITSU**

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# For Safe Operation

## Handling of This Manual

This manual contains important information regarding the use and handling of this product. Read this manual thoroughly. Pay special attention to the section "Important Warnings". Use the product according to the instructions and information available in this manual.

FUJITSU makes every effort to prevent users and bystanders from being injured or from suffering from damages to their property. Use the product according to this manual.

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# Revision History

<b>Edition</b>	<b>Date</b>	<b>Revised section (*1) (Added/Deleted/Altered)</b>	<b>Details</b>
01	2003-2-20	-	-
02	2003-5-1	Appendix D	PRIMEPOWER1/100 is added
		3.4	Change the procedure
		3.3.1	Some parameter explanations are added
		3.5	Some procedures are added
03	2004-1-8	3.6	VLAN information is added
		-	Change the Version 2.0 to 2.1
		Appendix E	VLAN tested switches are added
04	2004-10-28	Chapter 4	LinkAggregation function is added
		-	Change the Version 2.1 to 2.2
		Appendix A	Messages are added
		Appendix E	Switches are added
05	2005-11-11	-	Change the Version 2.2 to 2.3
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07	2007-01-20	-	Change the Version 2.4 to 3.0
08	2007-04-03	-	Change the Version 3.0 to 3.0 Update1

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# Preface

## Purpose

This manual describes how to install the FUJITSU PCI GigabitEthernet card in your PRIMEPOWER system, and configure the environment setting of the interface.

## Target Reader

This book is intended for system administrators responsible for installing the FUJITSU PCI GigabitEthernet card.

To understand the concepts and procedures presented in this manual, you need from one to two years of experience in the Solaris (TM) Operating System (in this document, abbreviated to Solaris OS.) system administration and a basic knowledge of networked systems.

## Organization

This section describes the chapters in this document.

### Chapter 1 Product Outline

Chapter 1 describes the distinctive features of the FUJITSU PCI GigabitEthernet Card.

### Chapter 2 Installing FUJITSU PCI GigabitEthernet Card

Chapter 2 describes how to install the adapter.

### Chapter 3 Setting Configuration Information

Chapter 3 provides an overview of the environment definition.

### Chapter 4 LinkAggregation Feature

Chapter 4 describes how to use the LinkAggregation function.

### Chapter 5 Troubleshooting

Chapter 5 offers suggestions about how to troubleshoot and resolve problems you might encounter during installation.

### Appendix A Messages

Appendix A shows the messages output by the driver software.

### Appendix B On-Board Diagnostics

Appendix B shows details of the adapter's on-board diagnostics.

### Appendix C Using GigabitEthernet in a Cluster Environment

Appendix C describes notes when using the adapter in a Cluster System.

### Appendix D PCI Slot Number and Device Name

Appendix D shows the PCI slot number and device name list matrix for each PRIMEPOWER model.



### Appendix E Available Switches

Appendix E shows a list of the available and supported switches.


8th Edition: April 2007

## Symbol

The following conventions are used in this manual:

-  **Caution** Items that require attention are explained.
-  **Information** Useful information is given.

Attention

-  The contents of this manual may be revised without prior notice.



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# Chapter 1 Product Outline

The following topics are described in this chapter.

- Key Features
- GigabitEthernet card Specifications



## 1.1 Key Features

The FUJITSU GigabitEthernet card is a adapter designed for Solaris OS servers that are connected to a GigabitEthernet network. This card offers the physical services and data link services defined by IEEE802.3.

**Table 1.1 GigabitEthernet function**

Main Function
IEEE802.3 compliant 1000Base-SX(PW008GE4, PW0G8GE1), 1000Base-SX * 2ports(SE0X7GD2X), 10/100/1000Base-T(PW008GE5, PW0G8GE2, PRIMEPOWER250/450 secondary LAN ), 10/100/1000 Base-T * 2ports(SE0X7GD1X), 10/100/1000 Base-T * 4ports(PW008QG1, SE0X7GQ1X) JumboFrame function* ndd(1M) command provided by Solaris OS VLAN* (IEEE 802.3 TagVLAN) LinkAggregation* (IEEE 802.3 except dynamic LACP protocol) IPv4/IPv6 SNA/FNA *JumboFrame, VLAN and LinkAggregation functions are supported after Solaris 8 OS.

### \* JumboFrame Functionality

Although the maximum frame size (MTU) of one Ethernet packet is 1514 bytes, by using a JumboFrame function it becomes possible to set MTU from 1514 bytes to 9014 bytes. Use of JumboFrames can mitigate the CPU load and improve transmission speed.

### \* Point to Point Connection

Direct connection between FUJITSU PCI GigabitEthernet cards is forbidden, except when used in the private LAN of a CLUSTER system.

## 1.2 GigabitEthernet card Specifications

The FUJITSU PCI GigabitEthernet card is an adapter that is installed into a PCI slot or a PCI Express slot.

### 1.2.1 Specifications

The specification of the FUJITSU PCI GigabitEthernet adapter is listed in "Table 1.2.1 PCI GigabitEthernet Card Specification" and "Table 1.2.2 PCI Express GigabitEthernet Card Specification".

**Table 1.2.1 PCI GigabitEthernet Card Specification**

Item	Compatibility
Host Bus Interface	PCI Local Bus Revision 2.1 or later
Network Interface	1000Base-SX (PW008GE4, PW0G8GE1) 10/100/1000Base-T (PW008GE5, PW0G8GE2, PRIMEPOWER250/450 secondary LAN) 10/100/1000Base-T * 4ports(PW008QG1)
Host Data Transfer	32/64-bit Bus Mastering DMA Transfers
Bus Type	One PCI slot per card.
Power Requirements	Maximum: 4.7W(PW008GE4/5, PW0G8GE1/2), 14.0W(PW008QG1)
Connections	1000Base-SX (P008GE4, PW0G8GE1): Multi-mode Fibre (62.5/125 micron) SC-Duplex 10/100/1000Base-T (PW008GE5, PW0G8GE2, PRIMEPOWER250/450 secondary LAN, PW008QG1): Cat5e Cable (Cat5 cable can also be used for 10/100Mbps.)

**Table 1.2.2 PCI Express GigabitEthernet Card Specification**

Item	Compatibility
Host Bus Interface	PCI Express 1.0a (SE0X7GD1X, SE0X7GD2X) PCI Express 1.1 (SE0X7GQ1X)
Network Interface	1000Base-SX * 2ports (SE0X7GD2X) 10/100/1000Base-T * 2ports (SE0X7GD1X) 10/100/1000Base-T * 4ports (SE0X7GQ1X)
Host Data Transfer	SE0X7GD1X, SE0X7GD2X: PCI Express 4lane Bus Mastering DMA Transfers SE0X7GQ1X: PCI Express 8lane Bus Mastering DMA Transfers
Bus Type	One PCI slot per card.
Power Requirements	Maximum: 9.1W(SE0X7GD1X), 9.2W(SE0X7GD2X), 15.0W(SE0X7GQ1X)
Connections	1000Base-SX(SE0X7GD2X): Multi-mode Fibre (LC-SC: 62.5/125 micron and 50/125 micron (A card side is LC. It is used when connection place partner equipment is SC.), LC-LC: 62.5/125 micron and 50/125 micron) 10/100/1000Base-T (SE0X7GD1X, SE0X7GQ1X): Cat5e Cable (Cat5 cable can also be used for 10/100Mbps.)



#### Caution

- PW008GE4, PW0G8GE1 and SE0X7GD2X only supports full duplex connection. Half-duplex

connection is not supported.

- When using 1000Mbps transfer rate with PW008GE5, PW0G8GE2, PRIMEPOWER250/450 secondary LAN port, SE0X7GD1X, PW008QG1 and SE0X7GQ1X, only Auto-Negotiation=0n can be used.

## 1.2.2 Part Names and Features of Hardware

Figure 1.1 to 1.8 shows the appearance of the FUJITSU PCI GigabitEthernet adapters. The part names and features are listed as follows.

### Connection:

PW008GE4, PW0G8GE1 and SE0X7GD2X allow optical fibre cable connection, PW008GE5, PW0G8GE2, PRIMEPOWER250/450 secondary LAN port, SE0X7GD1X, PW008QG1 and SE0X7GQ1X allow twisted pair cable connection. See the section "Chapter 2 Installing FUJITSU PCI GigabitEthernet Card" for detailed information.

### LEDs:

PW008GE4 (1000BASE-SX) has two LEDs(1000M LED, ACT LED) indicating transmission rate and activity. PW0G8GE1 and SE0X7GD2X (1000BASE-SX) has two LEDs(LINK LED, ACT LED) indicating transmission rate and activity. PW008GE5 and PW0G8GE2 (10/100/1000BASE-T) have four LEDs(1000M LED, 100M LED, 10M LED, ACT LED) indicating 1000Mbps, 100Mbps, 10Mbps, and activity. SE0X7GD1X (10/100/1000BASE-T) have three LEDs(1000M LED, 100M LED, LINK/ACT LED) indicating 1000Mbps, 100Mbps, and activity. PW008QG1 and SE0X7GQ1X (10/100/1000BASE-T) has two LEDs(LINK LED, ACT LED) indicating transmission rate and activity. See "Appendix B On-Board Diagnostics" for detailed information.





Figure 1.1 1000Base-SX  
(PW008GE4)



Figure 1.2 10/100/1000Base-T  
(PW008GE5)

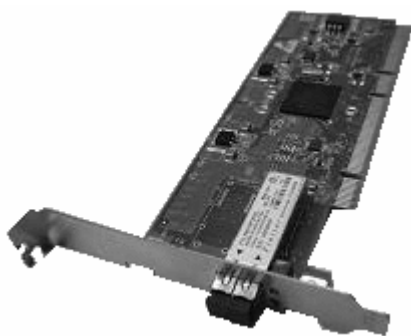
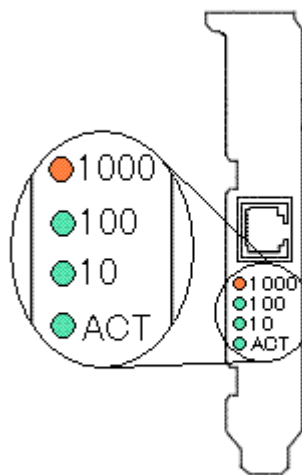
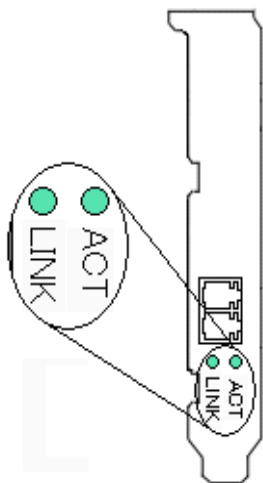


Figure 1.3 1000Base-SX  
(PW0G8GE1)



Figure 1.4 10/100/1000Base-T  
(PW0G8GE2)

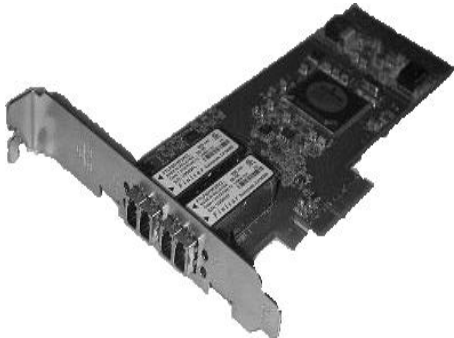
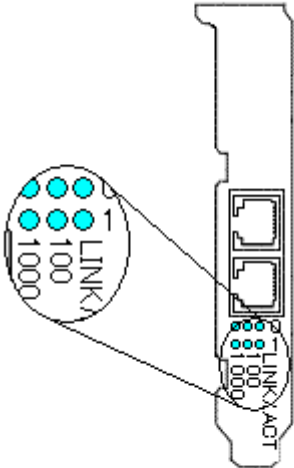
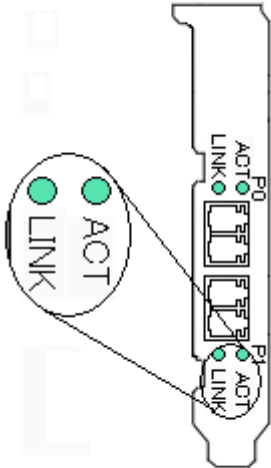


Figure 1.5 1000Base-SX \* 2ports  
(SE0X7GD2X)

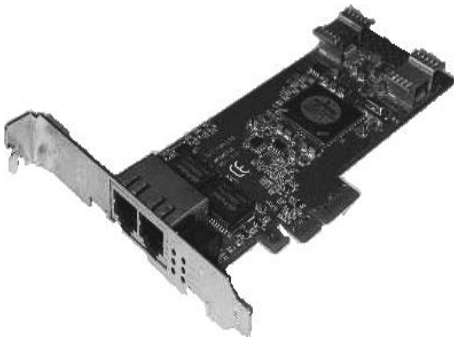


Figure 1.6 10/100/1000Base-T \* 2ports  
(SE0X7GD1X)

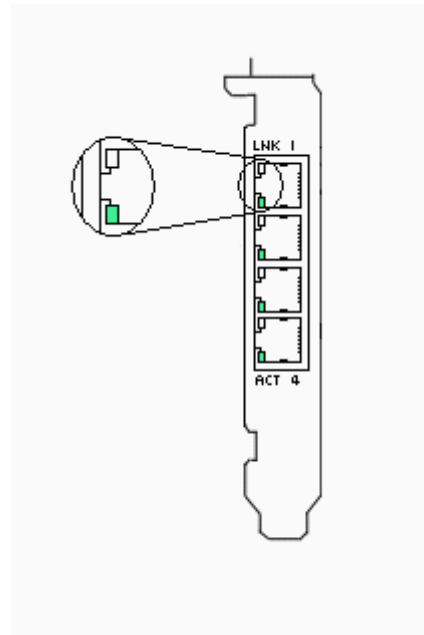
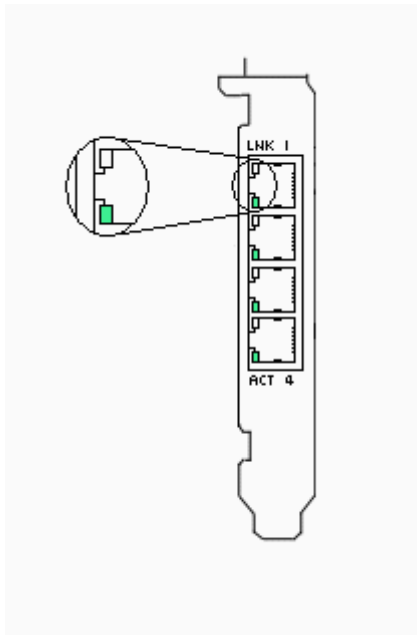


Figure 1.7 10/100/1000Base-T \* 4ports  
(PW0G8GE1)

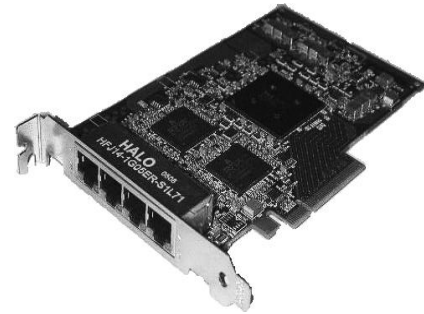


Figure 1.8 10/100/1000Base-T \* 4ports  
(SE0X7GQ1X)



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# Chapter 2 Installing FUJITSU PCI GigabitEthernet Card

This chapter describes the tasks necessary to install this card in the main unit.

- Installation of the GigabitEthernet card
- Identifying the GigabitEthernet card
- Cable connection



## 2.1 Installation of the GigabitEthernet Card

Insert the card in a PCI slot or a PCI Express slot on the main unit.

(Please refer to the main unit's User's Manual for details about installing cards and specific PCI slot or PCI Express slot specifications.)

## 2.2 Identifying the GigabitEthernet Card

The GigabitEthernet card can be identified by executing the "boot -r" command at the OpenBoot prompt.

```
ok boot -r
```

## 2.3 Cable Connection

To connect the PW008GE4, PW0G8GE1 and SE0X7GD2X GigabitEthernet card to the network, use an optical fiber cable. To connect the PW008GE5, PW0G8GE2, PRIMEPOWR250/450 secondary LAN, PW008QG1, SE0X7GD1X and SE0x7GQ1X GigabitEthernet card to the network, use a CAT5E twisted pair cable (Enhanced Category 5).

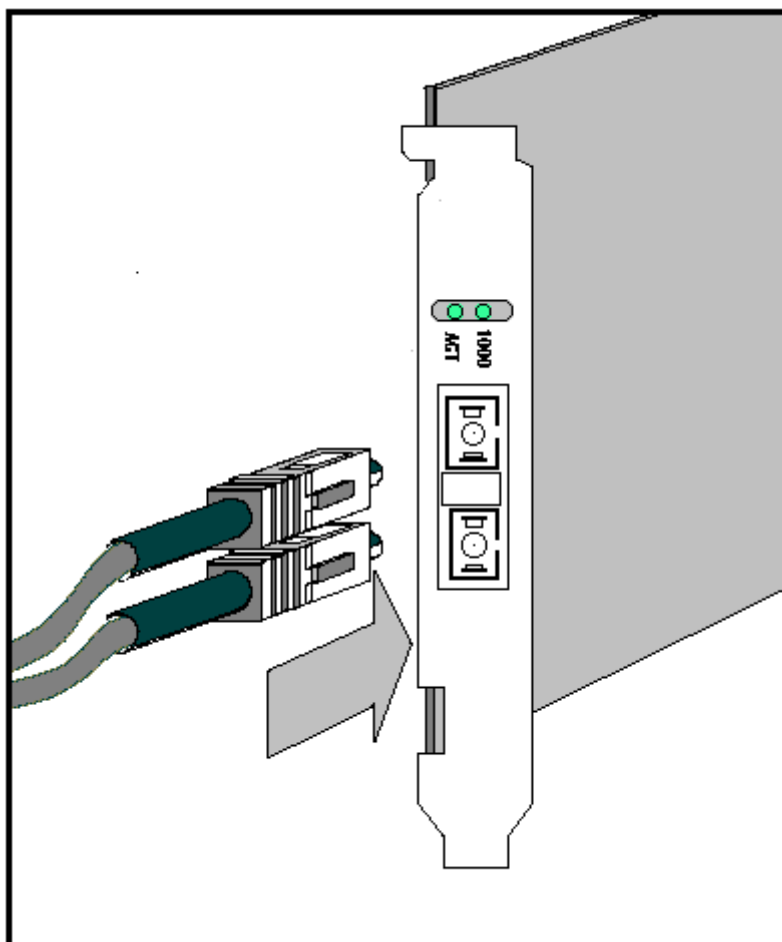


Figure 2.3.1 PW008GE4 (with Optical Fiber Cable)

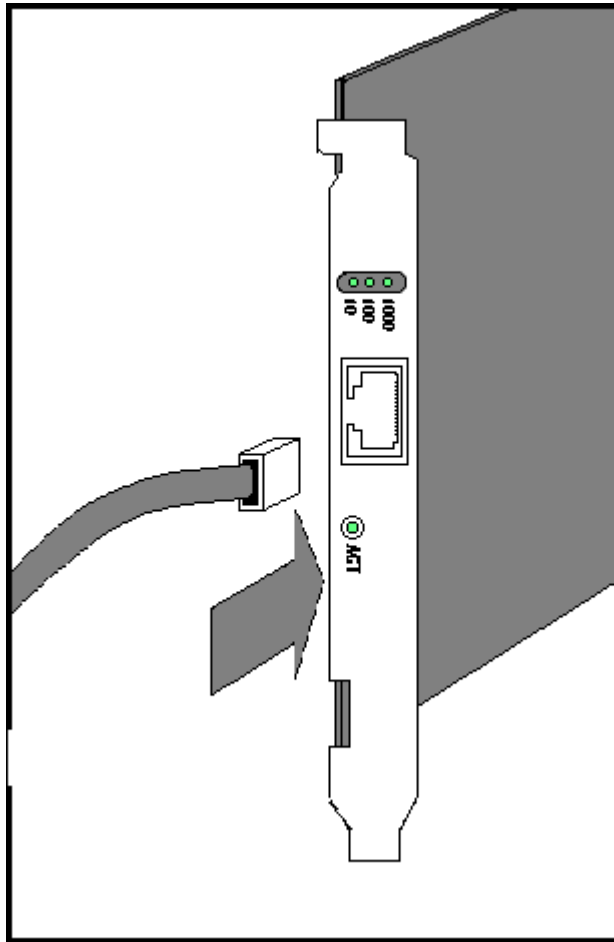


Figure 2.3.2 PW008GE5 (with Twisted Pair Cat5E Cable)

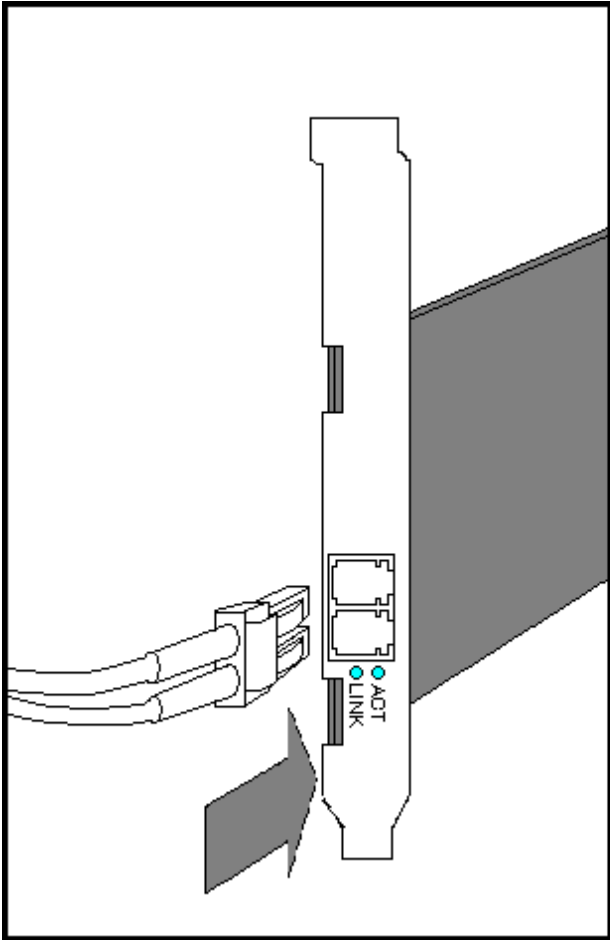


Figure 2.3.3 PW0G8GE1 (with Optical Fiber Cable)

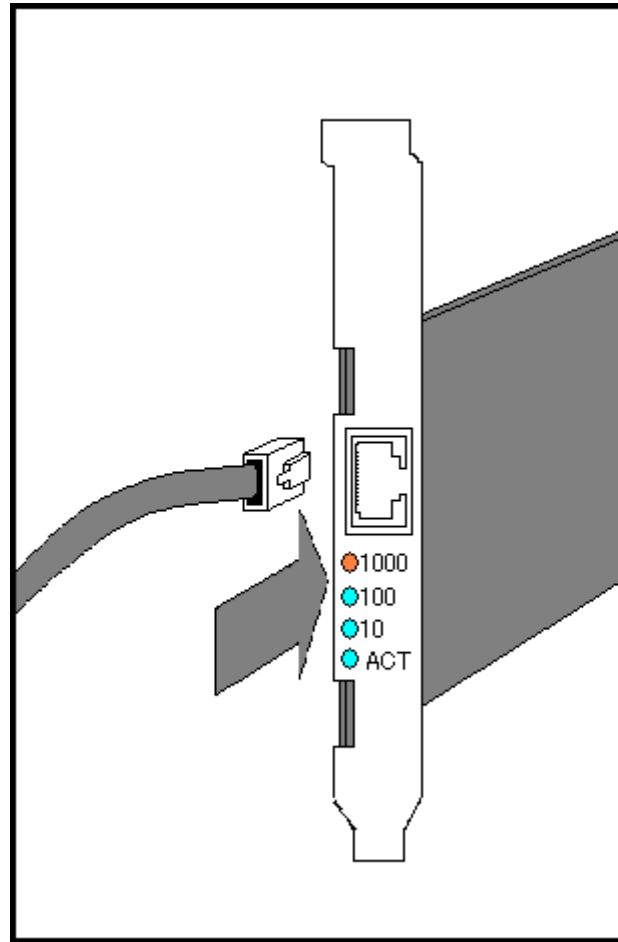


Figure 2.3.4 PW0G8GE2 (with Twisted Pair Cat5E Cable)

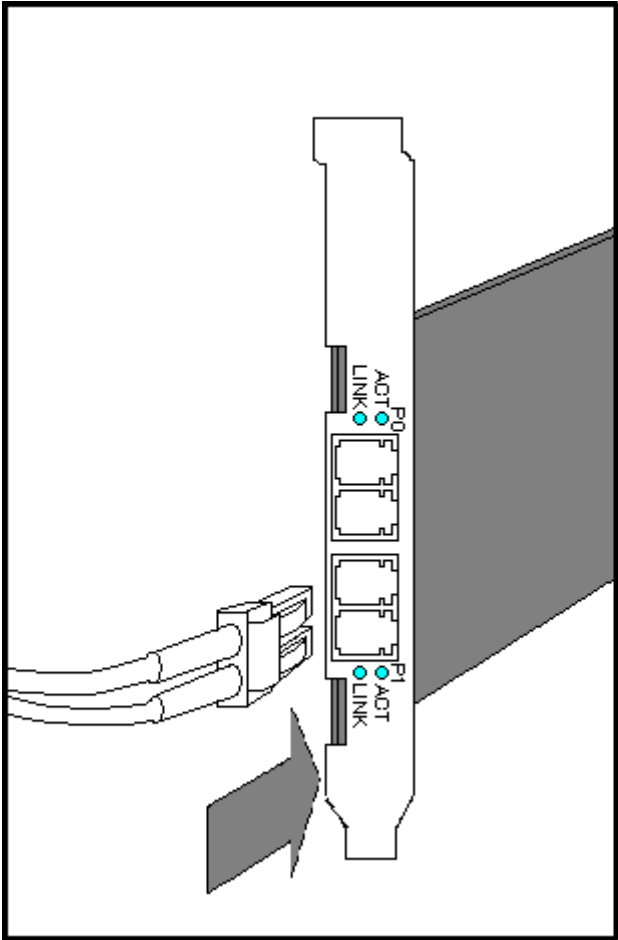


Figure 2.3.5 SEOX7GD2X (with Optical Fiber Cable)

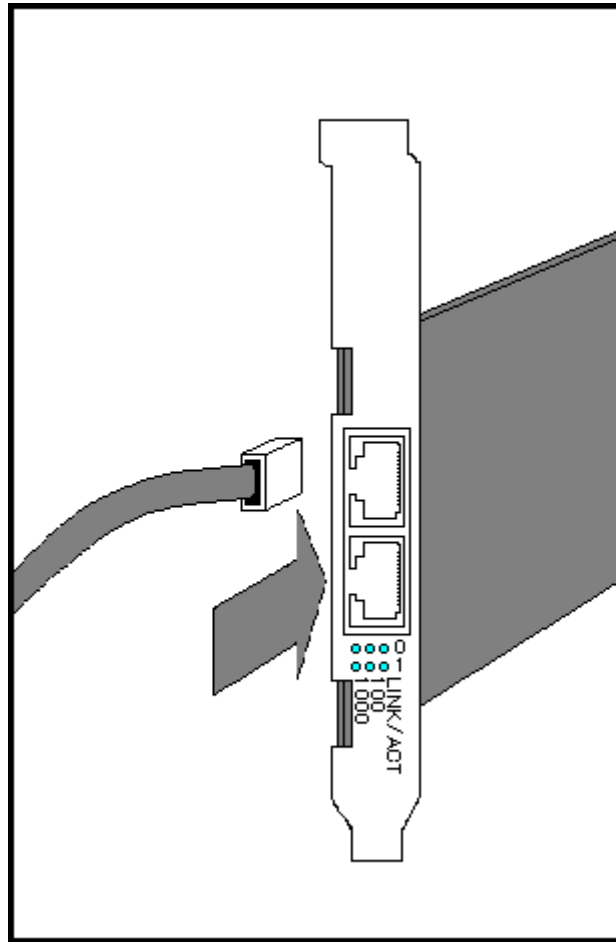


Figure 2.3.6 SEOX7GD1X (with Twisted Pair Cat5E Cable)



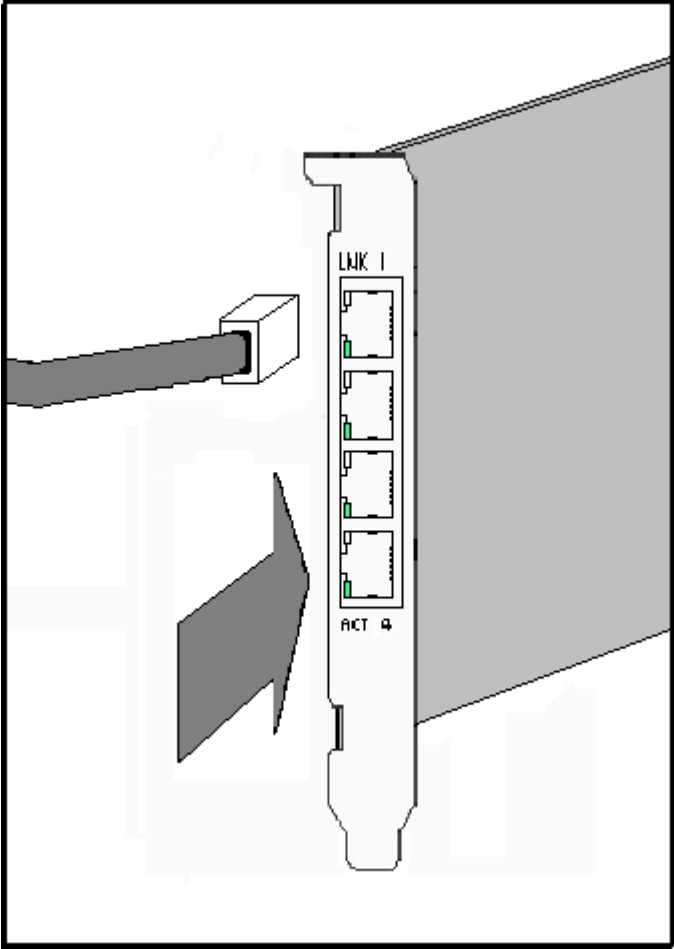


Figure 2.3.7 PW008QG1 (with Twisted Pair Cat5E Cable)

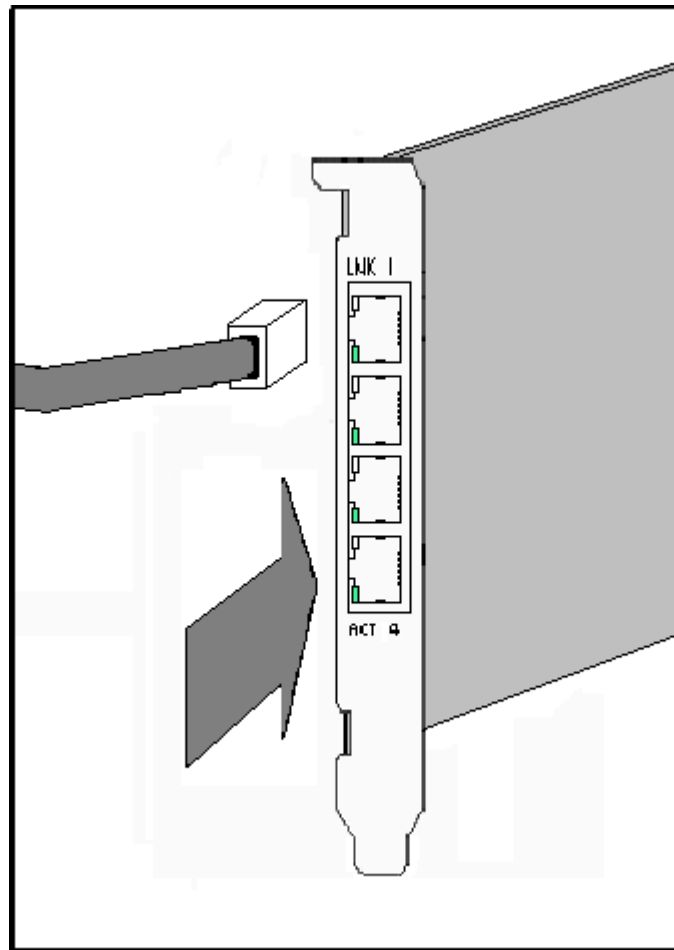


Figure 2.3.8 SE0X7G01X (with Twisted Pair Cat5E Cable)



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# Chapter 3 Setting Configuration Information

This chapter describes how to set configuration information after installing the FUJITSU PCI GigabitEthernet interface.

The following topics are covered in this chapter:

- Driver Software Installation
- Environment Setting
- Operation Mode Setup
- Discernment of the GigabitEthernet interface
- Network Installation
- VLAN Interface Setup

## 3.1 Driver Software Installation

To make use of the FUJITSU PCI GigabitEthernet interface, Solaris OS version-specific driver packages must be installed from the attached CD-ROM. See the document "*Installation Guide FUJITSU PCI GigabitEthernet 3.0 Update1*" for the installation procedure.

## 3.2 Environment Setting

This section explains how to edit the necessary file to configure the operating environment of the FUJITSU PCI GigabitEthernet interface.

In TCP/IP (IPv4 or IPv6) protocol, edit the following information must be setup.

- Configuring the Hostname file
- Hostname Definition
- Netmask Value Definition

### 3.2.1 Configuring the Hostname File

1. To use the GigabitEthernet interface as an IPv4 interface:

Allocate an IP address or hostname for the fjgi driver by editing the /etc/hostname.fjgi\* file (where \* is a numerical value). About netmask value, please see "3.2.3 Netmask Value Definition".

Example /etc/hostname.fjgi\* file:

Define a unique hostname:

```
giga-v4
```

Or define the IP address:

```
192.168.150.1
```

Note 1: Please put a decimal number (instance number) into \*.

See section "3.4 Discernment Of the GigabitEthernet Interface" for detailed information about instance number.

Note 2: See section "3.2.2 Hostname Definition" for detailed information about defining the hostname.

Note 3: Please put in neither a blank nor a empty line behind an IP address. If a blank or a empty line enter, it will not be activated at the time of main part equipment starting.

2. To use the GigabitEthernet interface as an IPv6 interface:

Allocate an IP address and prefix for the fjgi driver by editing the /etc/hostname6.fjgi\* file (where \* is a numerical value).

Example /etc/hostname6.fjgi\* file:

Define a unique hostname:

```
addif giga-v6/120 up
```

Note: See section "3.2.2 Hostname Definition" for detailed information about defining the hostname.

3. To use the GigabitEthernet interface as a VLAN interface:

See section "3.6.2 How to create the VLAN interface", and after defining the VLAN name, follow steps 1 or 2 above.

### 3.2.2 Hostname Definition

Define an IP address with a unique hostname.

1. To use the GigabitEthernet interface as an IPv4 interface:

Add the IPv4 address and hostname to the /etc/hosts file.

Example /etc/hosts file:

# IP Address	Hostname
190.168.150.1	giga-v4

- To use the GigabitEthernet interface as an IPv6 interface:  
Add the IPv6 address and hostname to the `/etc/inet/ipnodes` file.  
Example `/etc/inet/ipnodes` file:

# IP Address	Hostname
fe80::2e0:ff:fea6:2222	giga-v6

### 3.2.3 Netmask Value Definition

To use the GigabitEthernet interface as an IPv4 interface, add the netmask value and IP address to the `/etc/netmasks` file.

Example `/etc/netmasks` file:

# IP Address	netmask
192.168.150.0	255.255.255.0



## 3.3 Operation Mode Setup

This section explains how to edit the `fjgi.conf` configuration file or issue a command to change the operation mode of the FUJITSU PCI GigabitEthernet interface. The operation mode can be changed with the following:

- The `fjgi.conf` file
- JumboFrame Setup
- The `ndd` Utility
- FCode Settings

### 3.3.1 The `fjgi.conf` File

About speed/duplex/flowcontrol, it recommends carrying out default operation (automatic setup by Auto-Negotiation). Usually, a setup of a `fjgi.conf` file is unnecessary.

It is a case as shown in the following examples that a setup of a `fjgi.conf` file is needed.

Example

- When connection partner equipment is not supporting Auto-Negotiation  
In this case, please let mode of operation in agreement with self-equipment and connection place partner equipment.
- Although Auto-Negotiation is used, when it is necessary to make only a specific setting value into a different value from a default value (for example, when you want to set speed as 100Mbps, in order to press down the CPU load by the network low)
- When JumboFrame is used  
It is also possible to set up except `fjgi.conf`. For details, please refer to "3.3.2 JumboFrame Setup".

The following table provides descriptions of the parameters used in the `fjgi.conf` file to configure the GigabitEthernet interface.

When editing the `fjgi.conf` file, please review the [Caution] items below.

#### [Parameter List]

Parameter	Value	Description
Name	<code>fjgi *1</code>	Used to specify the driver name.
Parent	See below	Used to specify the location of the device node in the device tree.
unit-address	See below	Used to specify the address within the device node.
AutoNegotiation_A	Sense	First connection is attempted with <code>AutoNegotiation_A=On</code> . If this fails, the connection is retried with <code>AutoNegotiation_A=Off</code> automatically. This setting can be used only with <code>PW008GE4</code> or <code>PW0G8GE1</code> .
	On (default)	Auto-Negotiation is enabled. The interface will not be able to communicate with remote device operating in fixed mode (Auto-Negotiation disabled). When <code>PW008GE5</code> , <code>PW0G8GE2</code> , <code>SE0X7GD1X</code> , <code>PW008QG1</code> , <code>SE0X7GQ1X</code> or <code>PRIMEPOWER250/450</code> secondary LAN port is used in 1000Mbps mode, use this setting.

Parameter	Value	Description
	Off	Auto-Negotiation is disabled. (Fixed mode)
LinkSpeed_A *2	Auto (default)	Connection speed of 1000, 100, or 10 Mbps is set based on negotiation with the remote device. (This can only be set when AutoNegotiation_A=On.)
	1000	Connect at 1000Mbps.
	100	Connect at 100Mbps.
	10	Connect at 10Mbps.
DuplexCapabilities_A *2	Both (default)	Indicating that both Full-Duplex and Half-Duplex are being supported. (This can only be set when AutoNegotiation_A=On.)
	Half	Half-Duplex operation is allowed.
	Full	Full-Duplex operation is allowed.
FlowControl_A *3	Auto (default)	Flow control is performed according to a setup of partner equipment.
	Rem	Only flow control from the remote machine is allowed. Flow control to the remote machine is not allowed.
	LocSend	Only flow control from the main unit is allowed. Flow control from the remote machine is not allowed.
	None	Flow control is disabled.
Role_A *4	Auto (default)	Master or Slave is set based on negotiation with the remote device. (This can only be set when AutoNegotiation_A=On.)
	Master	Communication by Master.
	Slave	Communication by Slave.
fjgi_mtu *5	1500 to 9000	MTU size is specified.

\*1: When PW008GE5 or PW0G8GE2 is used, it is possible to set name="FJSV,pgtb". When PW008GE4 or PW0G8GE1 is used, it is possible to set name="FJSV,pgsb". It becomes the same meaning as having specified name="fjgi" in both cases.

\*2: Parameter is supported on 10/100/1000Base-T (PW008GE5, PW0G8GE2, SE0X7GD1X, PW008QG1, SE0X7GQ1X) adapters and PRIMEPOWER250/450 secondary LAN port.

\*3: Parameter is effective only when AutoNegotiation\_A=On. When AutoNegotiation\_A=Off, with 10/100/1000 Base-T, it becomes FlowControl\_A=None. And with 1000 Base-SX, it becomes FlowControl\_A=Rem.

\*4: Parameter is supported on 10/100/1000Base-T (PW008GE5, PW0G8GE2, SE0X7GD1X, PW008QG1, SE0X7GQ1X) adapters and PRIMEPOWER250/450 secondary LAN port in 1000Mbps mode only.

\*5: Parameter is supported only in Solaris 9 or later, and when the following patch for PRIMEPOWER is applied.

In the case of Solaris 9 OS: 114994-13 or later

In the case of Solaris 10 OS: 120462-06 or later

### [Parameter Setting]

The following shows how to set the parent and unit-address parameter in the fjgi.conf file.

- Find the fjgi device tree, device node and instance number in the /etc/path\_to\_inst

file.

```

example)
# grep fjgi /etc/path_to_inst
"/pci@83,2000/FJSV,pwga@1" 0 "fjgi" - PRIMEPOWER250/450 secondary LAN port
"/pci@15,2000/FJSV,pgtb@1" 1 "fjgi" - PW008GE5, PWOG8GE2
"/pci@17,2000/FJSV,pgsb@1" 2 "fjgi" - PW008GE4, PWOG8GE1
"/pci@83,4000/pci@3/FJSV,p4ta@1" 3 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@1,1" 4 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@3" 5 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@3,1" 6 "fjgi"
    
```

- In the above example:

device node of device tree	instance number	driver name
/pci@83,2000/FJSV,pwga@1	0	fjgi
/pci@15,2000/FJSV,pgtb@1	1	fjgi
/pci@17,2000/FJSV,pgsb@1	2	fjgi
/pci@83,4000/pci@3/FJSV,p4ta@1	3	fjgi
/pci@83,4000/pci@3/FJSV,p4ta@1,1	4	fjgi
/pci@83,4000/pci@3/FJSV,p4ta@3	5	fjgi
/pci@83,4000/pci@3/FJSV,p4ta@3,1	6	fjgi

- The unit-address is the number to the right of FJSV, pwga@, FJSV, pgtb@, or FJSV, pgsb@. The unit-addresses from the example are shown below.

	PRIMEPOWER250/450 secondary LAN port	PW008GE5, PWOG8GE2	PW008GE4, PWOG8GE1
name	fjgi	fjgi	fjgi
parent	/pci@83,2000	/pci@15,2000	/pci@17,2000
unit-address	1	1	1

	PW008QG1
name	fjgi
parent	/pci@83,2000/pci@3
unit-address	instance 3 is 1 instance 4 is 1,1 instance 5 is 3 instance 6 is 3,1

- The location of the fjgi.conf file depends on the model of the host system as described below:

- (1) PRIMEPOWER1 or PRIMEPOWER100  
/platform/sun4u/kernel/drv/fjgi.conf
- (2) PRIMEPOWER other than (1) or GP7000 family  
/platform/sun4us/kernel/drv/fjgi.conf
- (3) SPARC Enterprise T1000 or T2000  
/platform/sun4v/kernel/drv/fjgi.conf
- (4) SPARC Enterprise M4000, M5000, M8000 or M9000  
/platform/SUNW, SPARC-Enterprise/kernel/drv/fjgi.conf

- The example which sets a parameter to a fjgi.conf file is shown.

example 1. the case where use the card of PW008GE5 (10/100-/1000BASE-T), and disable Auto-Negotiation and connection speed is made into 100Mbps and Half-Duplex

```
name="fjgi" parent="/pci@15,2000" unit-address="1"
AutoNegotiation_A="Off" LinkSpeed_A="100" DuplexCapabilities_A="Half" ;
```

example 2. the case where use the card of PW008GE4 (1000BASE-SX) and Auto-Negotiation is disabled

```
name="fjgi" parent="/pci@17,2000" unit-address="1"
AutoNegotiation_A="Off" ;
```

example 3. the case where use the port of the instance number 4 of PW008QG1 (10/100-/1000BASE-T), and enable Auto-Negotiation and connection speed is made into 100Mbps and a Full-Duplex

```
name="fjgi" parent="/pci@83,4000/pci@3" unit-address="1,1"
AutoNegotiation_A="On" LinkSpeed_A="100" DuplexCapabilities_A="Full" ;
```

After making changes to the fjgi.conf file, the system must be rebooted.



### Caution

- About speed/duplex/flowcontrol, it recommends carrying out default operation (Auto-Negotiation). In that case, connection partner equipment should also enable Auto-Negotiation. By doing so, it is the optimal. speed/duplex/flow control It is set up automatically.
- When you use fjgi.conf file and you change mode of operation, please let mode of operation in agreement with self-equipment and connection partner equipment. When mode of operation is not in agreement with self-equipment and connection partner equipment, it may not become a value as a link up is not carried out, or it cannot communicate even if it carries out a link up, or mode of operation specified.
- When an adapter is removed, please remove the setting parameters of the applicable adapter defined in the fjgi.conf file. If an adapter is removed and the setting parameters are left in the fjgi.conf file, panic may occur at the time of a system startup, and it becomes impossible to start.
- Because the parameters are set in the fjgi.conf file per physical interface, when a VLAN interface is used, individual interface used by the VLAN interface must be similarly configured.
- The parameters set in the fjgi.conf file may not become effective with DR (Dynamic Reconfiguration) function and Pci Hot Plug function. The system must be rebooted after the parameters are set.

### 3.3.2 JumboFrame Setup

By using a JumboFrame the TCP/IP MTU size can be expanded from 1500 to 9000. By expanding the single packet transmission size, the number of packets processed can be reduced, lowering the CPU load.

There are three kinds of following methods in the setting procedure of JumboFrame.

#### [Method 1: How to specify by /etc/system and /etc/hostname.fjgi\* (recommendation)]

It recommends setting up JumboFrame by this method. This method can be used only in Solaris 9 or later, or Solaris 8 patch 109900-01 or later is applied. When you use JumboFrame in Solaris 2.6 or 7, please set up by the method 2.

1. Add the following line to /etc/system file.

```
set fjgi:fjgi_jumbo=1
```

2. The MTU size of TCP/IP is set up by describing MTU size in /etc/hostname.fjgi\* (notes) in the form of the following between 1500 and 9000 and rebooting. When not specifying an MTU value as this file, it is set as a default value (except for a 9000Byte MAC header).

(Note) \* expresses an instance number.

```
Setting formal
hostname mtu MTU size

Example of setting (when setting MTU size of fjgi0 to 8000)
# cat/etc/hostname.fjgi0
myhost mtu 8000
#
```

3. Reboot the system.

#### [Method 2: How to specify by /etc/system and /etc/fjmtu.fjgi\*]

Please use this method when you use JumboFrame in Solaris 2.6 or 7. This method is not supported when main part equipment is SPARC Enterprise Server series.

1. Add the following line to /etc/system file.

```
set fjgi:fjgi_jumbo=1
```

- The MTU size of TCP/IP is set up by creating `/etc/fjmtu.fjgi*` (notes) and describing MTU size in `/etc/fjmtu.fjgi*` in the form of the following between 1500 and 9000 and rebooting. When not specifying an MTU value as this file, it is set as a default value (except for a 9000Byte MAC header).

(Note) \* expresses an instance number. An instance number should set up the value (the same as that of \* of `/etc/hostname.fjgi*`) which surely corresponds.

Example of setting (when setting MTU size of `fjgi0` to 8000)

```
# cat /etc/fjmtu.fjgi0
8000
#
```

- Reboot the system.

### [Method 3: How to specify by `fjgi.conf`]

When you set up MTU size separately by every interface, and when application does not refer to `/etc/hostname.fjgi*` (example . CF of PRIMECLUSTER, CIP function), please use this method.

This method can be used only in Solaris 9 or later, and when the following patch for PRIMEPOWER is applied.

In the case of Solaris 9 OS: 114994-13 or later

In the case of Solaris 10 OS: 120462-06 or later

- Add `fjgi_mtu` parameter to `fjgi.conf` file. Specify the value like `fjgi_mtu=8000` instead of the character string like `fjgi_mtu="8000"`.

Example of file description (when setting MTU size of a specific interface to 8000)

```
name="FJSV,pgtb" parent="/pci@15,2000" unit-address="1"
fjgi_mtu=8000:
```

- Reboot the system.



#### Caution

- If JumboFrame support is enabled, the interface will be unable to transmit and receive data in IEEE802.3 format.
- In the case of a method 1 or a method 2, if two or more interfaces, or VLAN interfaces are installed, the JumboFrame setting applies to all interfaces.
- When the file transfer protocol (FTP) is used, set the MTU-size to 8232 or less.
- When using the JumboFrames function with the PW008GE5, PW0G8GE2, SE0X7GD1X, PW008QG1, SE0X7GQ1X or the PRIMEPOWER250/450 secondary LAN port, only use 1000Mbps mode.

- The parameters set in `/etc/fjmtu.fjgi*` and `fjgi.conf` file are not effective with DR (Dynamic Reconfiguration) function and Pci Hot Plug function. To be effective this file, the system must be rebooted.

### 3.3.3 The ndd Utility

By using the `ndd` command, the interface communication mode can be changed dynamically. Usually, although it is not necessary to change the interface communication mode by the `ndd` command, when shown in the following examples, please change the interface communication mode by the `ndd` command.

Example

- It changed into the equipment which does not support Auto-Negotiation from the equipment which supports Auto-Negotiation for connection partner equipment after a system startup. Or it changed into the equipment which supports Auto-Negotiation from the equipment which does not support Auto-Negotiation conversely.

- The following examples show how to display and set the parameters using the `ndd` command.

Setup of an instance number:

```
ndd -set /dev/fjgi 'instance' value (Instance number "value" of an applicable
                                     interface is specified.)

example) fjgi2 is specified.
# ndd -set /dev/fjgi 'instance' 2

(Note) carry out for referring to -- carry out for setting up -- it is necessary
to specify the instance number of an applicable fjgi interface first
```

To display:

```
ndd -get /dev/fjgi 'param' (param: Each parameter)

example) The state of the link of fjgi2 is referred to.
# ndd -set /dev/fjgi 'instance' 2
# ndd -get /dev/fjgi 'link_status'
```

To set:

```
ndd -set /dev/fjgi 'param' value (param:each parameter and value: Value)

example) 1000Mbps/FullDuplex of fjgi2 is disabled.
# ndd -set /dev/fjgi 'instance' 2
# ndd -set /dev/fjgi 'adv_1000fdx_cap' 0

(Note) In this stage, a setup is not reflected in hardware yet.
```

When setting change is reflected (with no change of an Auto-Negotiation value):

```

ndd -set /dev/fjgi 'instance' value (Instance number "value" of an applicable
                                     interface is specified.)
ndd -set /dev/fjgi 'param1' value (Change 1 of a setup)
ndd -set /dev/fjgi 'param2' value (Change 2 of a setup)
    :                               :
ndd -set /dev/fjgi 'adv_autoneg_cap' N (Once let Auto-Negotiation be a different
                                     value from the present condition.)
ndd -set /dev/fjgi 'adv_autoneg_cap' M (Auto-Negotiation is returned to the
                                     original value.)

example) While Auto-Negotiation had been enabled, when changing fjgi0 into 100Half
(Autonego=1, link_sppd=100, link_mode=0) from a default state (Autonego=1,
link_speed=1000, link_mode=1)

# ndd -set /dev/fjgi 'instance' 0
# ndd -set /dev/fjgi 'adv_1000fdx_cap' 0
# ndd -set /dev/fjgi 'adv_1000hdx_cap' 0
# ndd -set /dev/fjgi 'adv_100fdx_cap' 0
# ndd -set /dev/fjgi 'adv_autoneg_cap' 0
# ndd -set /dev/fjgi 'adv_autoneg_cap' 1

(Note) Please perform change and sending back of Auto-Negotiation at the end.

```

When setting change is reflected (an Auto-Negotiation value being subject to change):

```

ndd -set /dev/fjgi 'instance' value (Instance number "value" of an
                                     applicable interface is specified.)
ndd -set /dev/fjgi 'param1' value (Change 1 of a setup)
ndd -set /dev/fjgi 'param2' value (Change 2 of a setup)
    :                               :
ndd -set /dev/fjgi 'adv_autoneg_cap' N (Let Auto-Negotiation be a different value
                                     from the present condition.)

exapmle) When fjgi0 is changed into the state of 100Full where Auto-Negotiation was
disabled, from the state of 100Half (Autonego=1, link_sppd=100,
link_mode=0) where Auto-Negotiation was enabled

# ndd -set /dev/fjgi 'instance' 0
# ndd -set /dev/fjgi 'adv_100fdx_cap' 1
# ndd -set /dev/fjgi 'adv_autoneg_cap' 0

(Note) Please make a change of Auto-Negotiation at the end.

```

- The following parameters can be used with the ndd command:

parameter	status	meaning
?	Read only	Display parameter list



parameter	status	meaning
link_status	Read only	0 : Link down 1 : Link up
link_speed	Read only	1000 : 1000Mbps 100 : 100Mbps 10 : 10Mbps
link_mode	Read only	0 : Half Duplex communication 1 : Full Duplex communication
autonego	Read only	0 : Auto-Negotiation is Off. 1 : Auto-Negotiation is On.
flow_control	Read only	0 : None (flow_control disabled) 1 : LocSend (Can transmit pause frame only) 2 : Rem (Can receive pause frame only) 3 : Sym (Can receive and transmit pause frame)
cardtype	Read only	0 : SX (PW008GE4/PW0G8GE1/SE0X7GD2X) 1 : T (PW008GE5/PW0G8GE2/SE0X7GD1X/ PW008QG1/SE0X7GQ1X, PRIMEPOWER250/450 secondary LAN port)
instance	Read and write	Instance Number
adv_10fdx_cap	Read and write	10Mbps/FullDuplex Setting 0 : Invalid 1 : Valid (Default)
adv_10hdx_cap	Read and write	10Mbps/HalfDuplex Setting 0 : Invalid 1 : Valid (Default)
adv_100fdx_cap	Read and write	100Mbps/FullDuplex Setting 0 : Invalid 1 : Valid (Default)
adv_100hdx_cap	Read and write	100Mbps/HalfDuplex Setting 0 : Invalid 1 : Valid (Default)
adv_1000fdx_cap	Read and write	1000Mbps/FullDuplex Setting 0 : Invalid 1 : Valid (Default)
adv_1000hdx_cap	Read and write	1000Mbps/HalfDuplex Setting 0 : Invalid 1 : Valid (Default)
adv_pauseTX	Read and write	Transmit Pause Frame Setting 0 : Invalid 1 : Valid (Default)
adv_pauseRX	Read and write	Receive Pause Frame Setting 0 : Invalid 1 : Valid (Default)
adv_autoneg_cap	Read and write	Auto-Negotiation Setting 0 : Auto-Negotiation Off (Fixed mode) 1 : Auto-Negotiation On (Default)
adv_role_cap	Read and write	Role Setting (Not valid for PW008GE4/PW0G8GE1/SE0X7GD2X) 0 : Slave 1 : Master 2 : Auto (Default)

parameter	status	meaning
lp_10fdx_cap	Read only	The link-partner has been set to 10Mbps/FullDuplex by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_10hdx_cap	Read only	The link-partner has been set to 10Mbps/HalfDuplex by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_100fdx_cap	Read only	The link-partner has been set to 100Mbps/FullDuplex by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_100hdx_cap	Read only	The link-partner has been set to 100Mbps/HalfDuplex by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_1000fdx_cap	Read only	The link-partner has been set to 1000Mbps/FullDuplex by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_1000hdx_cap	Read only	The link-partner has been set to 1000Mbps/HalfDuplex by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_pauseTX	Read only	The link-partner has been set to transmit pause frame by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_pauseRX	Read only	The link-partner has been set to receive pause frame by Auto-Negotiation. 0 : Invalid 1 : Valid
lp_autoneg_cap	Read only	The link-partner has been set to Auto-Negotiate by Auto-Negotiation. 0 : Invalid 1 : Valid
role_cap	Read only	The current Role setting when operating at 1000Mbps. (Not valid for PW008GE4/PW0G8GE1/SE0X7GD2X) 0 : Slave 1 : Master
jumbo	Read only	0 : JumboFrame support disabled. 1 : JumboFrame support enabled.



### Caution

- About speed/duplex/flowcontrol, it recommends carrying out default operation (Auto-Negotiation). In that case, connection partner equipment should also enable Auto-Negotiation. By doing so, it is the optimal. speed/duplex/flow control It

is set up automatically.

- When you use `ndd` command and you change mode of operation, please let mode of operation in agreement with self-equipment and connection partner equipment. When mode of operation is not in agreement with self-equipment and connection partner equipment, it may not become a value as a link up is not carried out, or it cannot communicate even if it carries out a link up, or mode of operation specified.
- Due to the `ndd` command specification, if two or more processes execute the `ndd` command for same driver at the same time, the resulting value will be invalid.
- If the `ndd` command is issued repeatedly, the `fjgi` driver's performance may decrease.
- The `link_speed`, `link_mode`, `autonego`, and `flow_control` parameter values are valid only when `link_status` = 1. If `link_status` = 0, these values are invalid.
- The values of `lp_10fdx_cap`, `lp_10hdx_cap`, `lp_100fdx_cap`, `lp_100hdx_cap`, `lp_1000fdx_cap`, `lp_1000hdx_cap`, `lp_pauseTX`, `lp_pauseRX`, and `lp_autoneg_cap` parameter values are valid only when Auto-Negotiation communication is successfully established. The parameter values are invalid when Auto-Negotiation is disabled or when Auto-Negotiation communication fails.
- The parameter values set by the `ndd` command become invalid after reboot.
- An `ndd` command made to a physical interface that is related to IPv4/IPv6 interface and SNA/FNA interface will apply to both the physical interface and the VLAN interface.

### 3.3.4 FCode Settings

By modifying FCode settings, the adapter communication mode can be changed. Changing the FCode settings is possible on PW008GE4/PW0G8GE1/SE0X7GD2X/PW008GE5/PW0G8GE2/SE0X7GD1X/PW008QG1/SE0X7GQ1X and the secondary LAN port of the PRIMEPOWER250/450. Modifying FCode settings may be needed when Auto-Negotiation is not used for speed, duplex setting, and flow control, or when the link partner does not support Auto-Negotiation. FCode changes do not take effect after the OBP reset and netboot is completed.

#### [FCode Setting Example]

The following example describes how to disable Auto-Negotiation and set the communication speed of an `fjgi` interface by modifying the FCode settings.

- Search for the device path for the GigabitEthernet interface at the `ok` prompt. (Please refer to chapter 3.4 “Discernment of the GigabitEthernet Interface.”)

```
example) ok show-nets
a) /pci@1f,4000/FJSV,pgtb@5
b) /pci@1f,4000/network@1,1
q) NO SELECTION
Enter Selection, q to quit:
```

In above example, “a) /pci@1f,4000/FJSV,pgtb@5” represents a PW008GE5 interface.

- Select the device.

```
example) ok cd /pci@1f,4000/FJSV,pgtb@5
```

- Execute the following command to change the mode into Force mode (speed fixed,

Auto-Negotiation off) from Auto-Negotiation mode.  
Setup to FCode is effective between OBP (Open Boot Prom).

- 1) The mode which can be set up on PW008GE4/PW0G8GE1/SE0X7GD2X (1000BASE-SX) is as follows.

Execute the following command to set Full Duplex communication, 1000Mbps.

```
example) ok transfer-speed=1000
```

- 2) The mode which can be set up on PW008GE5/PW0G8GE2/SE0X7GD1X/PW008QG1/SE0X7GQ1X and PRIMEPOWER250/450 secondary LAN port is as follows.

- Execute the following command to set Full Duplex communication, 100Mbps.

```
example) ok transfer-speed=100
```

- Execute the following command to set Half Duplex communication, 100Mbps.

```
example) ok transfer-speed=100  
example) ok half-duplex
```

- Execute the following command to set Full Duplex communication, 10Mbps.

```
example) ok transfer-speed=10
```

- Execute the following command to set Half Duplex communication, 10Mbps.

```
example) ok transfer-speed=10  
example) ok half-duplex
```

- Display the current settings.

```
example) ok .properties
```

The following example shows the current settings of a PW008GE5 card installed in a PRIMEPOWER600.

```
{6} ok cd /pci@11,4000/FJSV,pgtb@5
{6} ok .properties
duplex                half          <--*1
transfer-speed       0000000a   <--*2
cabinet-name         Cabinet#0
board-name            Motherboard#1
assigned-addresses   83002810 00000000 00100000 00000000 00010000
                    82002830 00000000 00110000 00000000 00010000
local-mac-address    00 e0 00 a6 c5 0c
fjgiga-rev           000000c2
product-name         FJSV,pgtb
device_type           network
address-bits         00000030
max-frame-size       00004000
reg                  00002800 00000000 00000000 00000000 00000000
                    03002810 00000000 00000000 00000000 00010000
model                 Broadcom, BCM5703C
compatible            fjgi
name                  FJSV,pgtb
media-type            1000BASE-T
fcode-rom-offset     00000000
66mhz-capable
fast-back-to-back
devsel-speed         00000001
class-code            00020000
interrupts           00000001
max-latency          00000000
min-grant             00000040
subsystem-id         000011a1
subsystem-vendor-id  000010cf
revision-id          00000002
device-id            000011a1
vendor-id            000010cf
pcibus-name          PCIBUS#G
component-name       01-PCI#5
fru                  PCI Slot (PCI#5 at Motherboard#1)
```

\*1: Displayed only when half-duplex is set.

\*2: Displayed only when transfer-speed is set to a specific value.

[10Mbps:0xa, 100Mbps:0x64, 1000Mbps:0x3e8]

Note: \*1 and \*2 are not displayed in a default configuration.

### [Returning to Default FCode Settings]

- To return to default FCode settings, execute the following command from the ok prompt, or power cycle the system.

```
ok reset-all
```

## 3.4 Discernment Of the GigabitEthernet Interface

This section explains how to distinguish the FUJITSU PCI GigabitEthernet interface instance number, interface type, and which slot the card is installed in.

- Discernment Of the GigabitEthernet Interface on PRIMEPOWER or GP7000 family
- Discernment Of the GigabitEthernet Interface on SPARC Enterprise

### 3.4.1 Discernment Of the GigabitEthernet Interface on PRIMEPOWER or GP7000 family

This section explains how to distinguish the FUJITSU PCI GigabitEthernet interface instance number, interface type, and which slot the card is installed in, on PRIMEPOWER or GP7000 family.

1. To determine the instance number, execute the following command.

```
# prtconf -D | grep fjgi

example) # prtconf -D | grep fjgi
FJSV,pwga, instance #0 (driver name: fjgi)
FJSV,pgsb, instance #1 (driver name: fjgi)
FJSV,pgtb, instance #2 (driver name: fjgi)
FJSV,p4ta, instance #3 (driver name: fjgi)
FJSV,p4ta, instance #4 (driver name: fjgi)
FJSV,p4ta, instance #5 (driver name: fjgi)
FJSV,p4ta, instance #6 (driver name: fjgi)
```

The instance number is the number displayed in **bold** above.

The adapter type can also be determined from the prtconf command output.

FJSV,pwga	PRIMEPOWER250/450 secondary LAN port
FJSV,pgsb	PW008GE4/PW008GE1 (1000BASE-SX) card
FJSV,pgtb	PW008GE5/PW008GE2 (10/100/1000BASE-T) card
FJSV,p4ta	PW008QG1 (10/100/1000BASE-T * 4ports) card

2. To determine the slot the GigabitEthernet PCI card is mounted in, execute the following command.

```
# more /etc/path_to_inst | grep fjgi

example) # more /etc/path_to_inst | grep fjgi
"/pci@83,2000/FJSV,pwga@1" 0 "fjgi"
"/pci@1f,0/pci@1/FJSV,pgsb@4" 1 "fjgi"
"/pci@1f,0/pci@1/FJSV,pgtb@1" 2 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@1" 3 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@1,1" 4 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@3" 5 "fjgi"
"/pci@83,4000/pci@3/FJSV,p4ta@3,1" 6 "fjgi"
```

The logical bus address and the instance number (shown in **bold**, above) are displayed.

The following table shows the logical bus address, instance number, and driver name for the example output above.

Logical bus address	Instance number	Driver name
"/pci@83,2000/FJSV,pwga@1"	0	fjgi
"/pci@1f,0/pci@1/FJSV,pgsb@4"	1	fjgi
"/pci@1f,0/pci@1/FJSV,pgtb@1"	2	fjgi
"/pci@83,4000/pci@3/FJSV,p4ta@1"	3	fjgi
"/pci@83,4000/pci@3/FJSV,p4ta@1,1"	4	fjgi
"/pci@83,4000/pci@3/FJSV,p4ta@3"	5	fjgi
"/pci@83,4000/pci@3/FJSV,p4ta@3,1"	6	fjgi

The logical bus address corresponds to a physical PCI slot number based on the Main Unit model number. Refer to the "Appendix D PCI slot number and device name" to determine the slot number from the logical bus address.

### 3.4.2 Discernment Of the GigabitEthernet Interface on SPARC Enterprise

This section explains how to distinguish the FUJITSU PCI GigabitEthernet interface instance number, interface type, and which slot the card is installed in, on SPARC Enterprise.

1. To determine the instance number, execute the following command.

```
# prtconf -D | grep fjgi

example) # prtconf -D | grep fjgi
FJSV,e4ta, instance #0 (driver name: fjgi)
FJSV,e4ta, instance #1 (driver name: fjgi)
FJSV,e4ta, instance #2 (driver name: fjgi)
FJSV,e4ta, instance #3 (driver name: fjgi)
FJSV,e2sa, instance #4 (driver name: fjgi)
FJSV,e2sa, instance #5 (driver name: fjgi)
FJSV,e2ta, instance #6 (driver name: fjgi)
FJSV,e2ta, instance #7 (driver name: fjgi)
```

The instance number is the number displayed in **bold** above.

The adapter type can also be determined from the prtconf command output.

FJSV,e4ta	SE0X7GQ1X (10/100/1000BASE-T * 4ports) card
FJSV,e2sa	SE0X7GD2X (1000BASE-SX * 2ports) card
FJSV,e2ta	SE0X7GD1X (10/100/1000BASE-T * 2ports) card

2. To determine the slot the GigabitEthernet PCI card is mounted in, execute the following command.

```
# more /etc/path_to_inst | grep fjgi

example) # more /etc/path_to_inst | grep fjgi
"/pci@1,700000/pci@0/FJSV,e4ta@4" 0 "fjgi"
"/pci@1,700000/pci@0/FJSV,e4ta@4,1" 1 "fjgi"
"/pci@1,700000/pci@0,1/FJSV,e4ta@6" 2 "fjgi"
"/pci@1,700000/pci@0,1/FJSV,e4ta@6,1" 3 "fjgi"
"/pci@3,700000/pci@0/FJSV,e2sa@4" 4 "fjgi"
"/pci@3,700000/pci@0/FJSV,e2sa@4,1" 5 "fjgi"
"/pci@2,600000/pci@0/FJSV,e2ta@4" 6 "fjgi"
"/pci@2,600000/pci@0/FJSV,e2ta@4,1" 7 "fjgi"
```

The logical bus address and the instance number (shown in **bold**, above) are displayed. The following table shows the logical bus address, instance number, and driver name for the example output above.

Logical bus address	Instance number	Driver name
"/pci@1,700000/pci@0/FJSV,e4ta@4"	0	fjgi
"/pci@1,700000/pci@0/FJSV,e4ta@4,1"	1	fjgi
"/pci@1,700000/pci@0,1/FJSV,e4ta@6"	2	fjgi
"/pci@1,700000/pci@0,1/FJSV,e4ta@6,1"	3	fjgi
"/pci@3,700000/pci@0/FJSV,e2sa@4"	4	fjgi
"/pci@3,700000/pci@0/FJSV,e2sa@4,1"	5	fjgi
"/pci@2,600000/pci@0/FJSV,e2ta@4"	6	fjgi
"/pci@2,600000/pci@0/FJSV,e2ta@4,1"	7	fjgi

The logical bus address corresponds to a physical PCI slot number based on the Main Unit model number. Refer to the "Appendix D PCI slot number and device name" to determine the slot number from the logical bus address.



## 3.5 Network Installation

This section explains how to perform a Solaris OS network installation using the FUJITSU PCI GigabitEthernet interface.

1. Please refer to the "Advanced Installation Guide" for information on the setup of the server and clients for Solaris Jumpstart.
2. On the installation server, execute the following command and check the mini root directory for the client system.  
The mini root directory for each client system is described in the `/etc/bootparams` file on the installation server.

```
# grep CLIENT_NAME /etc/bootparams  
  
example) # grep CLIENT_NAME /etc/bootparams  
          CLIENT_NAME root=SERVER_NAME:/netinstall/Solaris_8/Tools/Boot install=
```

In the above example, the mini root directory is `/netinstall/Solaris_8/Tools/Boot` on the installation server.  
`CLIENT_NAME` is the name of the client system.  
`SERVER_NAME` is the name of the installation server.



### Information

If the mini root directory name is not described in the `/etc/bootparams` file, please refer to the "Advanced Installation Guide".

3. Insert the "FUJITSU PCI GigabitEthernet 3.0 Update1" CD-ROM into the CD-ROM drive of the installation server.
4. Install the "FUJITSU PCI GigabitEthernet 3.0 Update1" software to the mini root directory as shown in the examples below.
  - 1) For PRIMEPOWER1 or PRIMEPOWER100 client systems:

```
# cd /cdrom/cdrom0/FJSVgid_3.0/PRIMEPOWER1_100  
# pkgadd -R mini_root_directory -d .  
# cd /
```

NOTE: In this example, the installation server is setup to install Solaris 8 OS on the client. Substitute the appropriate Solaris level in the `pkgadd` command for other Solaris OS levels.



### Information

The package name may be displayed as "FJSVgid.2". This is normal.

- 2) For other PRIMEPOWER model client systems:

```
# cd /cdrom/cdrom0/FJSVgid_3.0/<Solaris Level of client system>
# ls FJSVgid*
FJSVgid.us  FJSVgidx.us  FJSVgidr.us  FJSVgidad.us
# pkgadd -R mini_root_directory -d .
# cd /
```

NOTE: In this example, the installation server is setup to install Solaris 8 OS on the client. Substitute the appropriate Solaris level in the pkgadd command for other Solaris OS levels.



### Caution

- When PW008QG1 is used, please apply the following required patch to the install image in the install server.
  - Solaris 8 OS : 114536-11 or later
  - Solaris 9 OS : 114994-11 or later
  - Solaris 10 OS : 120462-04 or later
- When PW0G8GE1 or PW0G8GE2 is used, please apply the following required patch to the install image in the install server.
  - Solaris 8 OS : 114536-12 or later
  - Solaris 9 OS : 114994-12 or later
  - Solaris 10 OS : 120462-05 or later

```
# cd /cdrom/cdrom0/FJSVgid_3.0/<Solaris level of client system>
# patchadd -C mini_root_directory <Patch-ID>
# cd /
```

5. Eject the "FUJITSU PCI GigabitEthernet 3.0 Update1" CD-ROM from the CD-ROM drive.
6. Shutdown the OS on the client system and confirm that the OpenBoot ok prompt is displayed.

```
# shutdown -i0 -g0 -y

example) # shutdown -i0 -g0 -y
         .....
         {shutdown messages are displayed}
         .....
         ok
```

7. Search the device path for the FUJITSU PCI GigabitEthernet device with the show-nets command from the ok prompt on the client system.

```
ok show-nets

example) ok show-nets
a) /pci@1f, 4000/FJSV, pgtb@5
b) /pci@1f, 4000/FJSV, pgsb@4
q) NO SELECTION
Enter Selection, q to quit:
```

8. From ok prompt, boot the client system using the FUJITSU PCI GigabitEthernet device.

```
ok boot /pci@1f,4000/FJSV,pgtb@5
```

9. Install the Solaris OS.
10. After Solaris OS installation, check whether the FUJITSU PCI GigabitEthernet software has already been installed using the following command.

```
# pkginfo | grep FJSVgid
```

```
example) # pkginfo | grep FJSVgid
          system FJSVgid Fujitsu Gigabit Interface Adapter
          system FJSVgidx Fujitsu Gigabit Interface Adapter (64-bit)
```

If the software has not been installed, install the FUJITSU PCI GigabitEthernet software from the CD-ROM that came with the adapter. Refer to the "*Installation Guide FUJITSU PCI GigabitEthernet 3.0 Update1*" for more information about installation.



### Caution

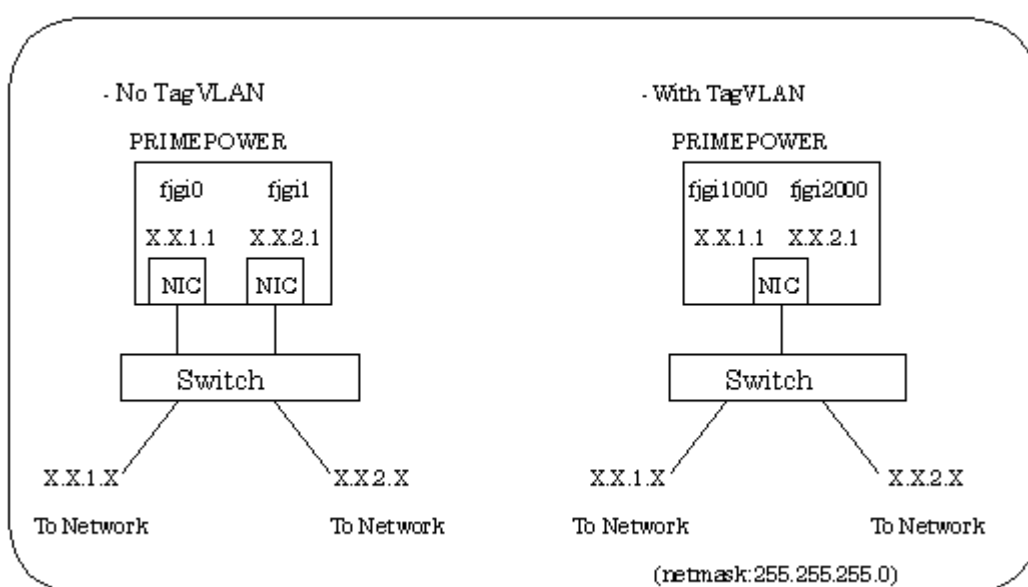
- When you install Solaris 2.6 OS via a network, please be sure to set the value of the "local-mac-address?" parameter of a client system as "false".

## 3.6 VLAN Interface Setup

This section provides information about IEEE 802.1Q TagVLAN interfaces. This section also provides instructions for setting up VLAN interfaces using the FUJITSU PCI GigabitEthernet interface.

### 3.6.1 IEEE 802.1Q TagVLAN Description

The IEEE 802.1Q TagVLAN function allows the use of two or more different networks with a single physical interface. Each VLAN operates as its own separate network, with its activity separated from other VLANs. To accomplish this, a virtual interface is created by assigning a VLAN ID (VID) to a physical interface. Note that communication between different VID interfaces on the same physical interface is not allowed. The following example shows a VLAN environment.



Example 1. VLAN environment

By using a VLAN, traffic management of two or more networks on a single physical interface can be done.

In order to create a VLAN environment, a switch capable of supporting a VLAN setup (VID and Tagged/Untagged setting) is required.

The numbers FUJITSU PCI GigabitEthernet 3.0 adapter supports:

VID	1 - 4094 (are available)
Max number of VLAN interfaces	1024 (can be created)

### 3.6.2 Setting Up the VLAN Interface

By setting the VLAN interface number to a value greater than 1000, it is possible to distinguish between VLAN interfaces and physical interfaces. The following naming format is used to create the VLAN interface number:

**VLAN Interface Number = (1000 \* VID) + Physical Instance Number**

#### VLAN Interface Setup Examples:

- To create a VLAN Interface Number for an interface with a physical instance of 3,

and belonging to VID 231, the following is used:

VLAN Interface Number = (1000 \* VID) + Physical Instance Number

**fjgi231003** = (1000 \* 231) + 3

Refer to "3.2 Environment Setting", and create the interface name **fjgi231003**.

Low 3 digits of VLAN interface number : physical instance number

Upper digits except low 3 digits of VLAN interface number: VLAN ID (1 - 4094).

**VLAN interface number = VLAN ID \* 1000 + physical instance number**



### Caution

- When connecting VLAN interfaces to a LAN switch, the switch must support Tag VLAN. (Please refer to "Appendix E Available Switches".)
- On the switch, set VLAN tagging and VLAN ports appropriately based on the VLANs setup on the server.
- Use the VLAN interface only with the TCP/IP protocol. Do not use the VLAN interface with SNA/FNA or OSI protocol.
- SafeLINK and PRIMECLUSTER GLS 4.1A20 (or earlier) do not support the VLAN function. PRIMECLUSTER GLS 4.1A30 (or later), in fast switching or NIC switching mode, does support the VLAN function.
- The VLAN function is supported with Solaris 8 OS or later.
- In a PRIMECLUSTER environment, when using a VLAN interface, check that the "SMAWdtcp" package has not been installed. If "SMAWdtcp" is installed, remove the package before setting up a VLAN interface.
- A VLAN interface uses approximately 700Kb of memory at MTU1514 or 900Kb of memory at MTU9014 in an idle state. Therefore, when using two or more VLAN interfaces, a system slowdown may occur due to a shortage of resources, depending on system configuration.

---

# Chapter 4 LinkAggregation Feature

This chapter outlines the LinkAggregation feature, and explains the settings required to use this feature.

- About the LinkAggregation feature
- Configuration of the LinkAggregation feature
- Notes

## 4.1 About LinkAggregation Feature

This section explains the LinkAggregation feature.

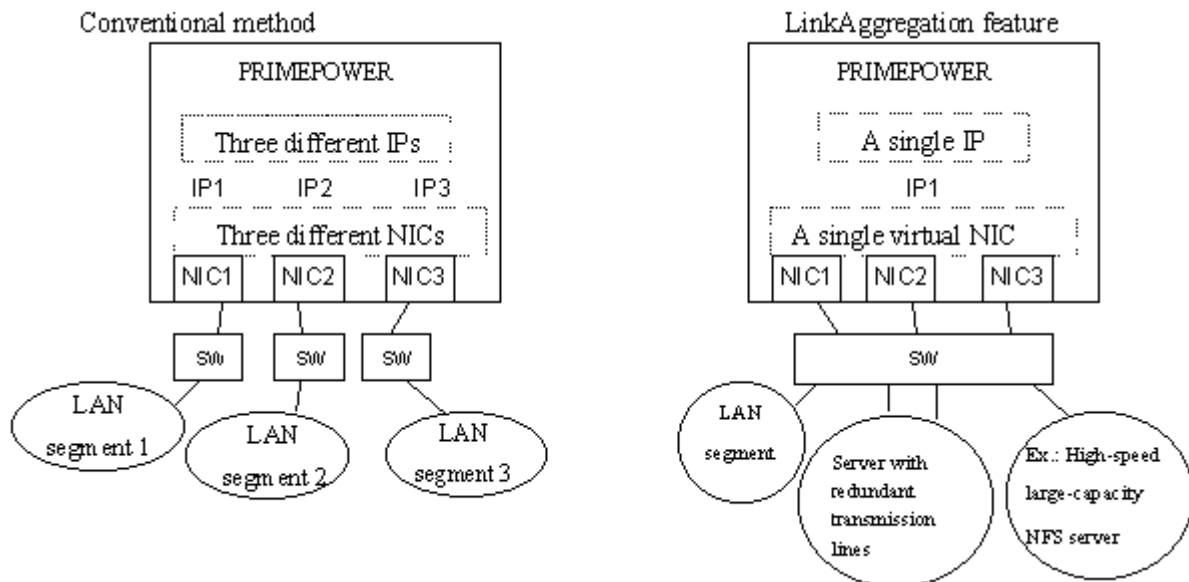
### - LinkAggregation feature:

The communication bandwidth and network reliability(\*) can be improved by bundling two or more network interfaces as one logical interface (up to 8 physical interfaces can be bundled). It is effective when handling a lot of data, or when offering large-scale customer service.

With this version, only static aggregation is supported. Dynamic Link Aggregation Control Protocol (LACP) specified by IEEE802.3ad is not supported.

\*1: As long as there is at least one transmission path available, communication can be continued.

\*2: The interface which can be made a group by FUJITSU PCI GigabitEthernet is only a fjgi interface.



### - Requirements:

Table 4.1.1 shows requirements for the LinkAggregation feature.

**Table 4.1.1 Requirements**

- OS: Solaris 8 OS or later 64bit environment
- FJSV1a package included in PRIMECLUSTER GLS 4.1 A30 or later
- Full duplex communication
- With TCP/IP connection
- LAN switch that supports the LinkAggregation (or equivalent) feature
- For PRIMEPOWER, patch 114536-07 (or later) for Solaris 8 OS, 114994-07 (or later) for Solaris 9 OS, 120462-01 (or later) for Solaris 10 OS is required.

Note: PRIMEPOWER250/450 secondary LAN port can also be used. PRIMEPOWER100 is not supported.

**- Data Distribution Mode:**

Table 4.1.2 explains data distribution modes that FUJITSU PCI GigabitEthernet 3.0 supports.

**Table 4.1.2 Data Distribution Mode**

Destination MAC address distribution	The LinkAggregation function determines the transmission path to be used from the destination MAC address in the outgoing packet. This reduces the likelihood of only specific transmission paths being used if the system mainly communicates with remote systems on the same network and improves transfer efficiency.
Destination IP address distribution	The LinkAggregation function determines the transmission path to be used from the destination IP address in the outgoing packet. This reduces the likelihood of only specific transmission paths being used if the system mainly communicates with remote systems on different networks via a router and improves transfer efficiency.
Source/Destination IP address distribution	The LinkAggregation function determines the transmission path to be used from the source IP and destination IP address in the outgoing packet. This reduces the likelihood of only specific transmission paths being used if the system mainly communicates with remote systems on different networks via a router and improves transfer efficiency. Also, this is more suitable when the local system works as a router.



## 4.2 Configuration of the LinkAggregation Feature

The LinkAggregation feature can be configured with one of the following methods:

- Setting Up the `/etc/opt/FJSVla/config` File
- Using the `/etc/opt/FJSVla/bin/fjla` Command



- **PRIMECLUSTER GLS 4.1 A30 or later** is required to use the LinkAggregation feature. The FJSVla package contains the `fjla` command and a sample configuration file.

### 4.2.1 Setting Up the `/etc/opt/FJSVla/config` File

This section explains how to create and modify the `/etc/opt/FJSVla/config` file to use the LinkAggregation feature. All LinkAggregation groups defined in the file will be automatically activated during the system boot. In this case, it is not necessary to run `/etc/opt/FJSVla/bin/fjla` command manually.

#### 1) Create the `/etc/opt/FJSVla/config` file:

The `/etc/opt/FJSVla/config.sample` file is provided by the FJSVla package. Copy the sample file to create the config file.

```
# cp /etc/opt/FJSVla/config.sample /etc/opt/FJSVla/config
```

#### 2) Modifying the `/etc/opt/FJSVla/config` file:

The following parameters must be specified in the `/etc/opt/FJSVla/config` file to use the LinkAggregation feature.

##### **aggregator-interface**

Specify the physical interface that represents the LinkAggregation group. The group is a unit that performs data distribution and aggregation and also provides redundancy.

##### **member-instance**

Specify the interfaces that belong to the LinkAggregation group by instance number (except `aggregator-interface`). The valid number of members is 1 to 7. Multiple members can be specified by separating them with ":".

##### **distribution mode**

Specify the distribution mode used by the LinkAggregation group. See "4.1 About LinkAggregation Feature" for detailed information about each distribution mode. Specify any one of the following values:

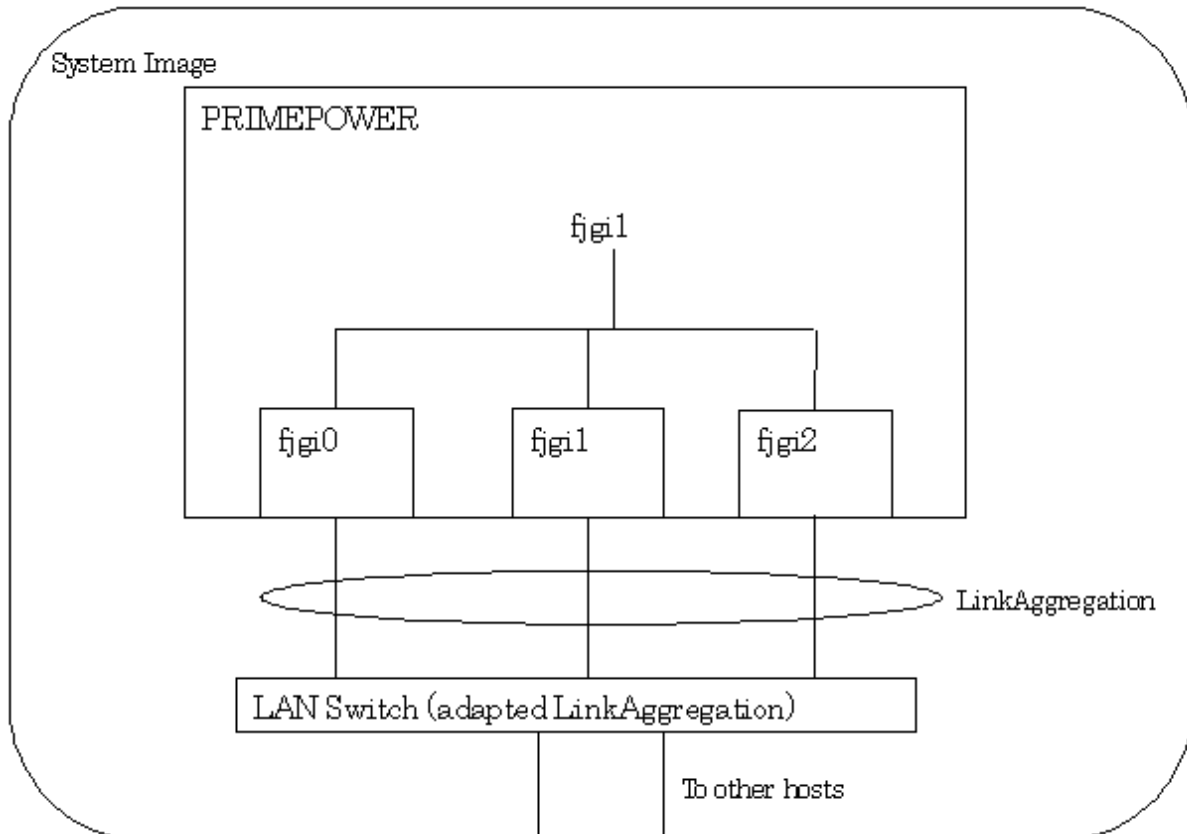
- 1: Destination MAC address distribution
- 2: Destination IP address distribution
- 3: Source/Destination IP address distribution

#### – Example

```
Aggregator-interface: fvgil
```

Member-instance: fjgi0, fjgi2

Distribution mode: Source/Destination IP address distribution



The /etc/opt/FJSV1a/config file for this configuration should look similar to the following:

```
#
# FJSV1a: FUJITSU LinkAggregation setup sample file
#
# *attention: Don't use the different link_speed interfaces in same group,
#             and can't use half duplex interface in LinkAggregation.
#
# - member_instance Input the number of interface.
#                   The available members are max 7.
#                   Please don't include the aggregator_interface number.
# - mode           1:Mac Hash
#                   2:Destination Address
#                   3:Source and Destination Address
#
# format:
# aggregator_interface member_instance[:member_instance] mode
#
# example
# fjgi0                1:2:3                1
# fjgi4                5                    2
# fjgi1 0:2 3
```



### Caution

- The `/etc/hostname.fjgiXX` (XX: instance number) file is required for the aggregator-interface only (in the above example, `/etc/hostname.fjgil` is required). The LinkAggregation group defined in the configuration file is activated by rebooting the system.

## 4.2.2 Using the `/etc/opt/FJSVla/bin/fjla` Command

The `fjla` command has the following functions.

- Activate a LinkAggregation Group (`fjla init`)
- Inactivate LinkAggregation Group (`fjla term`)
- Display status and statistics (`fjla stat`)

### 4.2.2.1 Activate a LinkAggregation Group (`fjla init`)

This section explains the `fjla init` command for activating a LinkAggregation group.

#### - Synopsis

```
/etc/opt/FJSVla/bin/fjla init aggregator-interface member-instance[:member-instance ]  
distribution-mode
```

*aggregator-interface* : Aggregator-interface name (including instance number)

*member-instance* : Instance numbers of member interfaces

*distribution-mode* : Distribution mode used by the LinkAggregation group. One of the following values must be specified:

- 1: Destination MAC address distribution
- 2: Destination IP address distribution
- 3: Source/Destination IP address distribution

#### - Description

Configure and activate the LinkAggregation group. All VLAN interfaces associated with the aggregator-interface will be automatically configured in the group.

#### - Exit code

0 : normal end.  
>0 : error end.

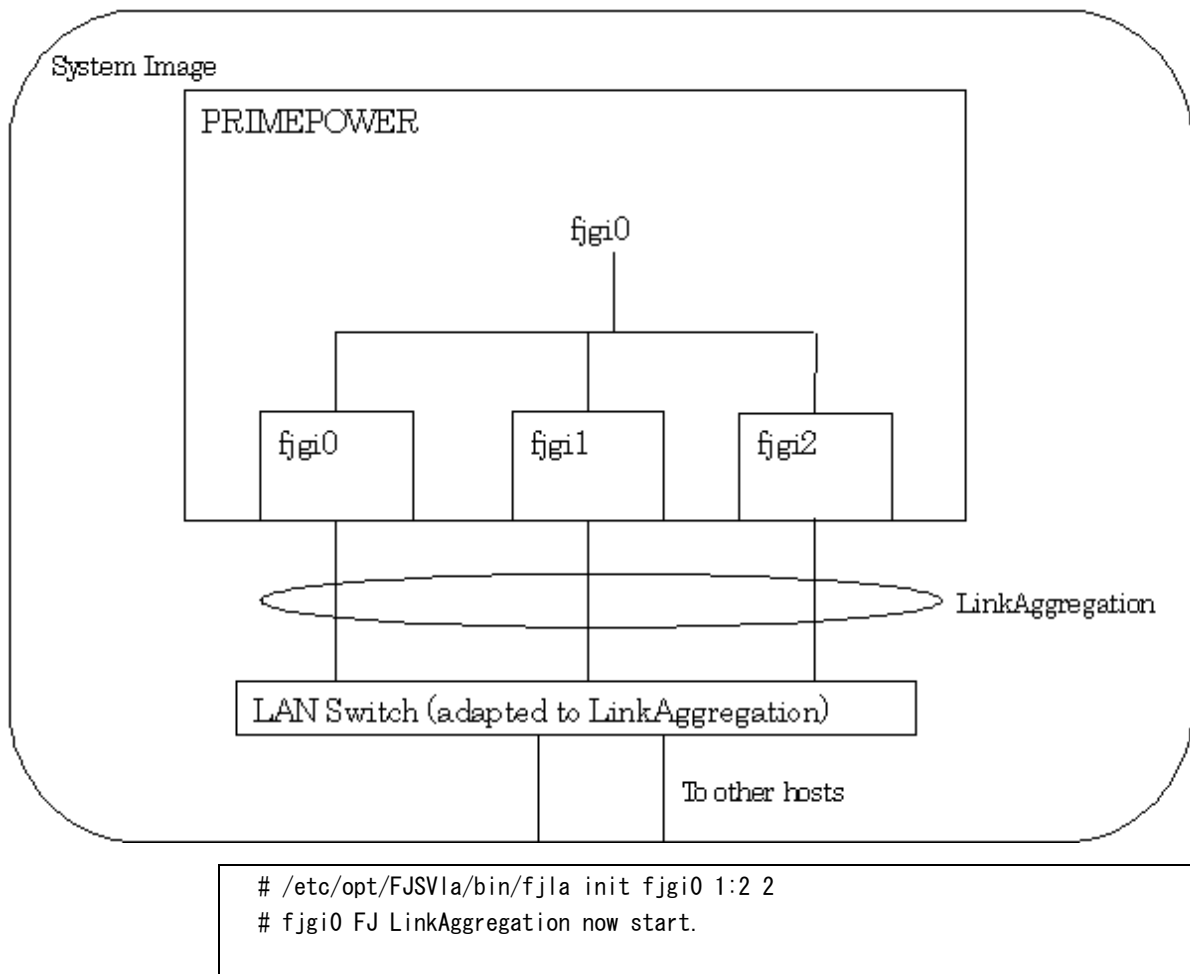
#### - Example

Configure and activate the LinkAggregation group with the following:

Aggregator-interface: `fjgi0`

Member-instance: `fjgil fjgi2`

Distribution-mode: Source/Destination IP address distribution



### Caution

- Before executing the command, the aggregator-interface must be already activated (the interface can be displayed by `ifconfig -a`), and the member instances must not be activated.
- The aggregator-interface must not be specified as a member instance.
- Configuration by the `fjla init` command will become ineffective after system reboot. Use the `/etc/opt/FJSVla/config` file for permanent configuration.

#### 4.2.2.2 Inactivate a LinkAggregation Group (fjla term)

This section explains the `fjla term` command for inactivating a LinkAggregation group.

##### – Synopsis

```
/etc/opt/FJSVla/bin/fjla term [aggregator-interface]
```

*aggregator-interface* : Aggregator-interface name (including instance number)

If *aggregator-interface* is not specified, all LinkAggregation group will be inactivated.

### - Description

Inactivate the LinkAggregation group.

### - Exit code

0 : normal end.

>0 : error end.

### - Example

Inactivate the LinkAggregation group with aggregator-interface = fjgi0.

```
# /etc/opt/FJSVla/bin/fjla term fjgi0
# FJ LinkAggregation stop.
```



### Caution

- When aggregator-interface is inactivated (unplumb), it cannot perform that fjla term if not specify aggregator-interface name. In this case, please specify aggregator-interface name.

## 4.2.2.3 Display Status and Statistics (fjla stat)

This section explains the fjla stat command for displaying the LinkAggregation status and statistic.

### - Synopsis

```
/etc/opt/FJSVla/bin/fjla stat [aggregator-interface] [-i interval]
```

*aggregator-interface* : Aggregator interface name (including instance number)

*-i interval (s)* : Specify the display interval in seconds (maximum:4294967295). The command displays the statistics during the specified period. However, the first report shows statistics accumulated since the group is activated.

If *aggregator-interface* is not specified, information for all LinkAggregation groups will be displayed. If *interval* is not specified (or “-i 0” is specified), the command only shows the first report.

### - Description

Display the status and statistics of specified aggregator-interface.

### - Exit code

0 :normal end.

>0 :error end.

**- Display Format**

The following example shows that the status and statistics for a LinkAggregation group (aggregator-interface is fjgi0):

```
# /etc/opt/FJSVla/bin/fjla stat fjgi0 -i 5
Oct 05 17:20:14 2004 Aggregator: fjgi0 Mode: DA
Name          Status Ipkts      lerrs Opkts      Oerrs %Ipkt  %Opkt
Total                7658459      0    71932472      0      -      -
fjgi0           up    7658459      0    71932472      0    100    100
fjgi1           up         0         0         0         0     0     0
fjgi2           up         0         0         0         0     0     0
```

Oct 05 17:20:14 2004 --- date and time

Aggregator --- aggregator-interface name

Mode --- MH :Destination MAC address distribution

DA :Destination IP address distribution

DSA:Source/Destination IP address distribution

Name --- Interface name

Status --- up : The interface is up and communicating

down: The interface is down(or Link is down)

Ipkts --- The number of input packets

lerrs --- The number of input error packets

Opkts --- The number of output packets

Oerrs --- The number of output error packets

%Ipkt --- Input distribution% (input packets distribution% in a group)

%Opkt --- Output distribution% (output packets distribution% in a group)

## 4.3 Notes

This section explains notes for using the LinkAggregation function.

- LACP (dynamic LinkAggregation function) is not supported.
- Only TCP/IP connection is supported.
- Do not run FJVTs when LinkAggregation is being used.
- If VLAN interface with LinkAggregation function enabled is used, the following must be satisfied.

The number of VLAN interfaces * the number of physical interfaces in group * the number of groups <= 1024
---

If the above is not satisfied, the system may not work correctly (due to lack of memory resource).

- Only superuser can execute the `fjla` command.
- The link speed must be the same among the member interfaces in a LinkAggregation group, and duplex mode must be set to full.
- It is necessary to inactivate the corresponding LinkAggregation group with the `fjla term` command before DR (Dynamic Reconfiguration) or PCI Hot Plug is performed.
- It is necessary to activate corresponding LinkAggregation group with the `fjla init` command after DR or PCI Hot Plug is completed.
- In a cluster system, takeover of LinkAggregation interfaces is not supported.
- The VLAN interface cannot be specified directly. It is necessary to use the VLAN interface with LinkAggregation that making the VLAN interface only for the aggregator-interface by a usual VLAN interface making procedure(`ifconfig(1M)` or making `/etc/hostname.fjgi**` file).

---

## Chapter 5 Troubleshooting

The following should be checked first to troubleshoot a problem.

### Is the driver software installed correctly?

Execute "pkginfo -l FJSVgid" and "pkginfo -l FJSVgidx" command to check the driver installation status. If the driver package is not found or is not installed correctly, install the driver packages using the driver CD-ROM or downloads from the following URL. <http://www.fujitsu.com/global/support/computing/server/unix/driver/>  
Refer to *INSTALLATION GUIDE* for details.

### Does the system recognize the GigabitEthernet interface properly?

Execute "prtconf -pv | grep FJSV" command to check whether the system is recognizing the interface properly. If "FJSV,pgsb" (PW008GE4/PW0G8GE1), "FJSV,pgtb" (PW008GE5/PW0G8GE2), "FJSV,p4ta" (PW008QG1), "FJSV,pwga" (PRIMEPOWER250/450 secondary LAN port), "FJSV,e2sa" (SE0X7GD2X), "FJSV,e2ta" (SE0X7GD1X), or "FJSV,e4ta" (SE0X7GQ1X) is not found, OBP (Open Boot PROM) on the system is not recognizing the GigabitEthernet interface properly. Check whether the interface is properly installed on the system.

### Are the LEDs on the GigabitEthernet card working properly?

Check the following items if the LEDs indicate the link status is abnormal. See also "Appendix B On-Board Diagnostics" for detailed information.

Check Item	Recommended Action
Optical fiber cable	Replace the optical fiber cable.
Adapter installation state	Install the GigabitEthernet card to the PCI slot of the system properly.
Adapter hardware	Replace the GigabitEthernet card.
Cable connection to the GigabitEthernet interface and the switch	Connect the cable to the devices firmly.
Power status of the GigabitEthernet switch	Check the power of the switch.
Connection port of the switch	Change the connection port of the switch.
Switch configuration	Check the switch configuration.
fjgi.conf file	Check the fjgi.conf file or change the file to default.
Driver package installation status	Re-install the driver package from the driver CD-ROM or the FUJITSU download web site.





# Appendix A Messages

This chapter explains messages from the FUJITSU PCI GigabitEthernet driver

## A.1 Console Messages

Console messages from the FUJITSU PCI GigabitEthernet driver are listed in Table A.1.1.

**Table A.1.1 Console Messages of the FUJITSU PCI GigabitEthernet driver**

No	Message	Cause	Workaround
1	network connection down	Link is down	Check the cable connection and the switch configuration.
2	network connection up using portA speed: [A] autonegotiation: [B] duplex mode: [C] flowctrl: [D] (role: [E]) *1	Link has become up [A] <b>1000</b> : Transmitting and receiving data at 1000Mbps <b>100</b> : Transmitting and receiving data at 100Mbps <b>10</b> : Transmitting and receiving data at 10Mbps [B] <b>yes</b> : Auto-Negotiation is on <b>no</b> : Auto-Negotiation is off [C] <b>full</b> : Transmitting and receiving data in full duplex mode <b>half</b> : Transmitting and receiving data in half duplex mode [D] <b>symmetric</b> : Send/accept Flowcontrol request to/from the remote system. <b>remote send</b> : Does not send Flowcontrol request. Only accept Flowcontrol request from the remote system. <b>local send</b> : Only send Flowcontrol request. Does not accept Flowcontrol request from the remote system. <b>none</b> : Disabled	There is no problem.

## Appendix A Messages

No	Message	Cause	Workaround
		[E] <b>Master:</b> Communicating as Master <b>Slave:</b> Communicating as Slave	
3	Illegal value for [ParameterName].	An error was found with a parameter defined in the fjgi.conf file.	Check whether the value is set correctly in the file.
4	soft state alloc failed.	Driver internal resources cannot be obtained.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
5	Allocation of descriptor memory failed	The driver could not allocate internal resources for DMA.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
6	fail to ddi_dma_bind_handle	The driver could not allocate DMA resources.	
7	fail to FragCount	A error was found in message fragmentation.	Re-activate the interface. If this message is still displayed, report to your service provider.
8	Could not allocate DMA handle	The driver could not allocate DMA resources.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
9	Could not bind descriptor memory	The driver could not allocate DMA resources.	
10	Multiple fragments in descriptor area	A error was found in message fragmentation.	Re-activate the interface. If this message is still displayed, report to your service provider.
11	fjgiallocthings failed	The driver could not allocate DMA resources.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
12	pci_config_setup_failed	The driver could not allocate sufficient PCI configuration space.	Installed physical memory may be insufficient or hardware has failed. Report this error to your service provider.

No	Message	Cause	Workaround
13	Unable to map adapter registers.	Mapping of the adapter registers failed.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
14	ddi_get_iblock_cookie-ERROR	The driver could not allocate interrupt resources.	
15	Unable to install interrupt routine.		
16	ddi_create_minor_node failed	Creation of a device file failed.	
17	ATTACH failed	The driver was not loaded to the kernel successfully.	
18	OPEN failed: ENOMEM	The driver could not allocate resources.	
19	CLOSE: stream==NULL		
20	bind to 802.2 failed	A different protocol is being used.	Re-activate the interface. If this message is still displayed, report to your service provider.
21	Duplex are invalid !! Please change the partner's duplex Full.	With PW008GE4/PW0G8GE1/SE0X7GD2X , the other end is using half duplex mode.	With PW008GE4/PW0G8GE1/SE0X7GD2X, only full duplex is available. Change the duplex mode of the other end to Full.
22	DL_DETACH_REQ: No board ptr	The adapter was not recognized.	Check the mounting status of the adapter.
23	fjgi_param_register error	The driver could not allocate resources for the ndd parameter.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
24	fjgi_board_alloc_mem failed !!	The driver could not allocate resources.	
25	Error filling TX ring	The driver could not allocate transmit resources.	
26	status block can't allocated!	The driver could not allocate status information resources.	
27	status block can't allocated handle!		
28	status block can't bind handle!		
29	fjgi_board_init_mem: Failed to dma_alloc !!	The driver could not allocate DMA resources.	
30	statistic block can't allocated!	The driver could not allocate statistic information resources.	
31	hwmib block can't allocated handle!		
32	hwmib block can't bind handle!		
33	fjgi_board_init_mem: Failed to dma alloc2!!	The driver could not allocate DMA resources.	
34	Illegal value for LinkSpeed_A	The value of LinkSpeed_A in the configuration file is incorrect.	Set the correct value for LinkSpeed_A.
35	fjgi_hw_init:Step 22 failed	An error occurred during initialization of the adapter.	A hardware failure occurred. Please contact your service provider.
36	fjgi_hw_init:Step 23 failed		
37	fjgi_hw_init:Step 43 failed		
38	Illegal combination of values AutoNeg and Speed	Auto speed can not be used in fixed mode.	Set a value other than Auto for LinkSpeed_A.

No	Message	Cause	Workaround
39	Role not available for fiber adapters	Role setting is no supported with PW008GE4/PW0G8GE1/SE0X7GD2X .	Remove Role_A parameter in the fjgi.conf file.
40	Can't judge T or SX !!	The adapter type cannot be recognized.	Check whether the system is supported. Since there is possibility of hard abnormalities when the system is supported, please replace the adapter.
41	DDI_DETACH busy, because fjla is active!	LinkAggregation member interfaces cannot be detached.	Perform DDI_DETACH after terminating the LinkAggregation function.
42	can't la attach fjgiX.	LinkAggregation setup for fjgiX failed.	Installed physical memory may be insufficient. If this is not the cause, report this error to your service provider.
43	fjgi_la_mlist: pAC (pVAC) member is wrong	Abnormal response was returned to the fjla stat command.	The internal group table may be corrupt. Please report this error to your service provider.
44	(Other messages)	There is a possibility of driver internal bug or hardware failure.	Report the error to your service provider.

\*1: This appears only when PW008GE5/PW0G8GE2/SE0X7GD1X/PW008QG1/SE0X7GQ1X or PRIMEPOWER250/450 secondary LAN port is used in 1000Mbps.

The Machine Administration function included in Enhanced Support Facility may report messages listed in Table A.1.2.

**Table A.1.2 Machine Administration Reported Messages**

Message	Meaning	Workaround
fjgi_device_check: fjgi_hw_deinit failed !	An error occurred during initialization of the adapter.	A driver may be the number of versions which is not supporting this adapter. Please apply the indispensable patch indicated to Installation Guide. Since there is possibility of hard abnormalities when a problem still is not solved, please replace the adapter.

Message	Meaning	Workaround
fjgi_device_check: fjgi_hw_init failed !	An error occurred during initialization of the adapter.	There is a possibility of hardware abnormalities. Please replace the adapter.
pci_config_setup_failed	The driver could not allocate sufficient PCI configuration space.	There is a possibility of the resource shortage or hardware abnormalities. Please check the memory usage and adapter installation status.
Autonegotiation_failed	The Auto-Negotiation of 1000BASE-SX failed.	Check the transmission mode and the adapter hardware.

## A. 2 Command Messages

Messages from the /etc/opt/FJSVla/bin/fjla command are listed in Table A. 2 ("XX" indicates user input value.)

**Table A. 2 Command Message**

No	Message	Cause	Workaround
1	fjla init: The number of members (including aggregator-interface) is max 8.	More than 8 interfaces were specified for an aggregation group.	Specify less than or equal to 8 interfaces (including aggregator-interface).
2	FJ LinkAggregation now start.	LinkAggregation has been started normally.	There is no problem.
3	fjla init: "XX" does not support FJ LinkAggregation.	The interface "XX" doesn't support the LinkAggregation feature.	If the interface is fjgi, check the patch level of the driver.
4	fjla init: "XX" vlan interface cannot define FJ LinkAggregation.	VLAN interface "XX" can not be used for the LinkAggregation feature.	By setting up the physical interface to use LinkAggregation, the VLAN interfaces associated with the physical interface also use LinkAggregation.
5	fjla init: A member interface has already been plumbed.	The interface specified as a LinkAggregation group member is already plumbed.	Unplumb all member interfaces except the aggregator-interface.
6	fjla init: "XX" is not plumbed interface.	"XX" interface specified as an aggregator-interface is not activated.	The interface specified as an aggregator-interface must be activated (viewable by ifconfig -a).
7	fjla init: Input member is duplicated.	The instance number is duplicated in the specified member list (including aggregator-interface).	Do not specify the same instance number in the LinkAggregation member list (including aggregator-interface).

No	Message	Cause	Workaround
8	fjla init: "XX" does not exist.	The interface "XX" does not exist.	Specify interfaces that exist on the system.
9	fjla init: Invalid mode number ("XX").	The distributed mode "XX" is incorrect.	Specify correct distributed mode (1, 2 or 3).
10	fjla init: An input instance already used by fjla or does not exist.	Specified interface is already being used by other LinkAggregation group or it does not exist. (This message is also displayed when the command is executed by general users.)	Specify interfaces that are not in the other LinkAggregation group. Also, specify interfaces that exist on the system.
11	FJ LinkAggregation stop.	LinkAggregation has been stopped normally.	There is no problem.
12	fjla term: "XX" is invalid interface-name.	The interface name "XX" is invalid.	Enter the correct aggregator-interface name.

## Appendix B On-Board Diagnostics

This appendix explains the on-board diagnostics function.

### - Location of the LEDs (PW008GE4/PW008GE5)

The following figures show the location of the LEDs.

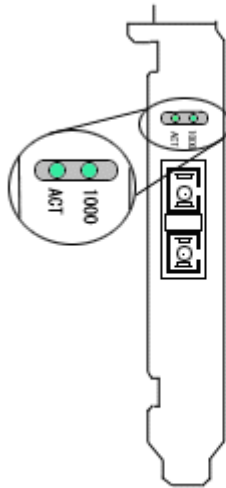


Figure B.1  
1000Base-SX (PW008GE4)

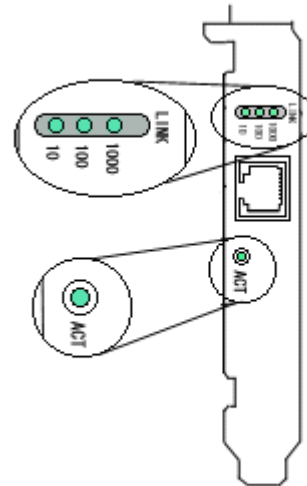


Figure B.2  
10/100/1000Base-T (PW008GE5)

### - Meaning of the LEDs (PW008GE4/PW008GE5)

1000M LED indicates the following operation status.

1000M LED	Description
Green lighting	The adapter is connected to a 1000Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 1000Mbps network.

100M LED indicates the following operation status. (PW008GE5 only)

100M LED	Description
Green lighting	The adapter is connected to a 100Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 100Mbps network.

10M LED indicates the following operation status. (PW008GE5 only)

10M LED	Description
Green lighting	The adapter is connected to a 10Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 10Mbps network.



ACT LED indicates the following operation status.

ACT LED	Description
Green lighting	The adapter is transmitting or receiving network traffic.
Off	There is no network traffic.

**- Location of the LEDs (PWO8GE1/SEOX7GD2X)**

The following figures show the location of the LEDs.

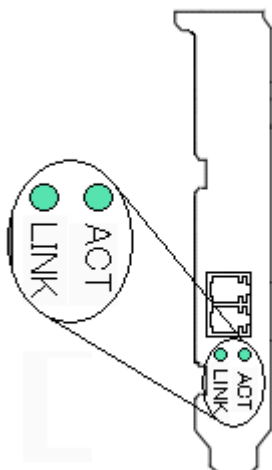


Figure B.3  
1000Base-SX (PWO8GE1)

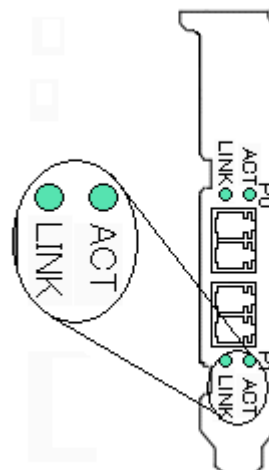


Figure B.4  
1000Base-SX \* 2ports (SEOX7GD2X)

**- Meaning of the LEDs (PWO8GE1/SEOX7GD2X)**

LINK LED indicates the following operation status.

LINK LED	Description
Green lighting	The adapter is connected to a 1000Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 1000Mbps network.

ACT LED indicates the following operation status.

ACT LED	Description
Green lighting	The adapter is transmitting or receiving network traffic.
Off	There is no network traffic.

---

## - Location of the LEDs (PWO8GE2)

The following figures show the location of the LEDs.

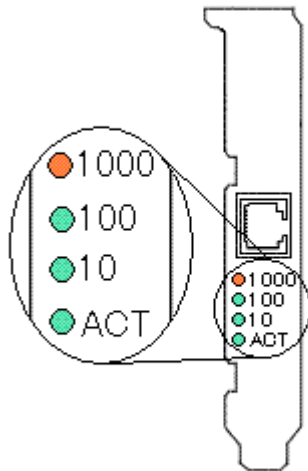


Figure B.5  
10/100/1000Base-T (PWO8GE2)

## - Meaning of the LEDs (PWO8GE2)

1000M LED indicates the following operation status.

1000M LED	Description
Amber lighting	The adapter is connected to a 1000Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 1000Mbps network.

100M LED indicates the following operation status.

100M LED	Description
Green lighting	The adapter is connected to a 100Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 100Mbps network.

10M LED indicates the following operation status.

10M LED	Description
Green lighting	The adapter is connected to a 10Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 10Mbps network.

ACT LED indicates the following operation status.

ACT LED	Description
Green lighting	The adapter is transmitting or receiving network traffic.
Off	There is no network traffic.

**- Location of the LEDs (SE0X7GD1X)**

The following figures show the location of the LEDs.

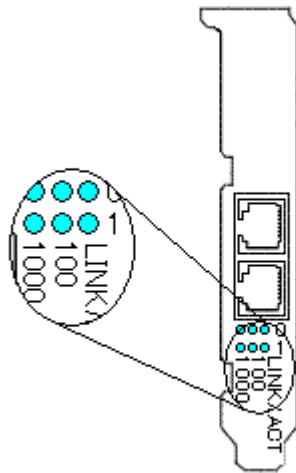


Figure B.6  
10/100/1000Base-T \* 2ports (SE0X7GD1X)

**- Meaning of the LEDs (SE0X7GD1X)**

1000M LED indicates the following operation status.

1000M LED	Description
Amber lighting	The adapter is connected to a 1000Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 1000Mbps network.

100M LED indicates the following operation status.

100M LED	Description
Green lighting	The adapter is connected to a 100Mbps network and is in the state which can communicate.
Off	The adapter is not connected to a 100Mbps network.

LINK/ACT LED indicates the following operation status.

LINK/ACT LED	Description
Green lighting	The adapter is connected to a 1000Mbps, 100Mbps or 10Mbps network and is in the state which can communicate.
Green Blinking	The adapter is transmitting or receiving network traffic.
Off	The adapter is not connected to a 1000Mbps, 100Mbps or 10Mbps network and there is no network traffic.

## - Location of the LEDs(PW008QG1/SE0X7GQ1X)

The following figures show the location of the LEDs.

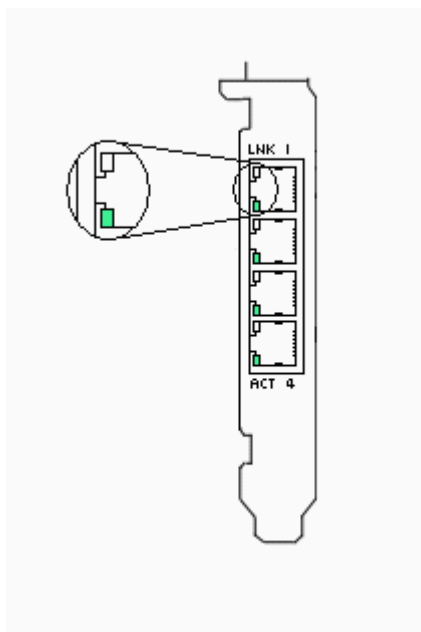


Figure B.7  
1000Base-T \* 4ports (PW008QG1)

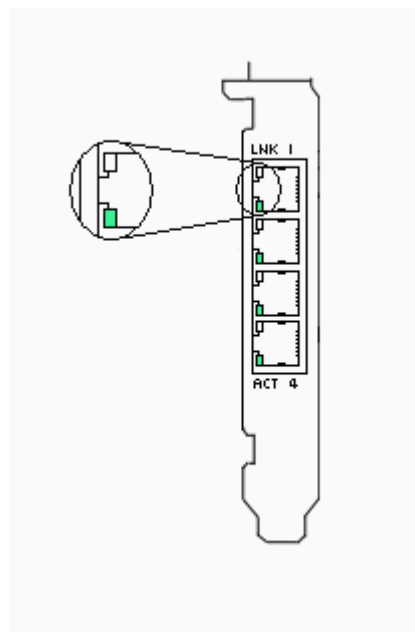


Figure B.8  
1000Base-T \* 4ports (SE0X7GQ1X)

## - Meaning of the LEDs(PW008QG1/SE0X7GQ1X)

LINK LED(White LED in Figure B.7/8) indicates the following operation status.

LINK LED	Description
Amber lighting	The adapter is connected to a 1000Mbps network and is in the state which can communicate.
Green lighting	The adapter is connected to a 100Mbps network and is in the state which can communicate.
Off	The adapter is connected to a 10Mbps network and is in the state which can communicate, or the adapter is not connected to a network.

ACT LED(Green LED in Figure B.7/8) indicates the following operation status.

ACT LED	Description
Green blinking	The adapter is transmitting or receiving network traffic.
Off	There is no network traffic.



---

# Appendix C Using GigabitEthernet in a Cluster Environment

This Appendix outlines the supported functions and setup procedure for the FUJITSU PCI GigabitEthernet 3.0 interface when used in a cluster environment.

## C.1 Cluster Environment Support

The FUJITSU PCI GigabitEthernet 3.0 adapter supports the following cluster features:

- Operation standby mode
- 1:n operation standby mode
- Mutual standby mode
- TCP/IP communication (public LAN)
- Use of a VLAN interface by SynfinityCluster private LAN or PRIMECLUSTER cluster interconnect cannot be performed.
- A JumboFrame function can be used in SynfinityCluster private LAN or PRIMECLUSTER cluster interconnect. When you change MTU size from a default value (9000), please set up by the fjgi.conf file. For details, please refer to "Method 3: How to specify by fjgi.conf" of "3.3.2 JumboFrame Setup".

The following table shows the supported failover mode with the FUJITSU PCI GigabitEthernet interfaces in a cluster system.

- SynfinityCluster

Failover Mode	Support Status
IP address	Supported
MAC address	Supported
IP address + MAC address	Supported (version 2.0.1 and later)

- PRIMECLUSTER

Failover Mode	Support Status
IP address	Supported
MAC address	Supported (version 4.1A10 and later)
IP address + MAC address	Supported (version 4.1A10 and later)

## C.2 Cluster Environment Setup Procedure

Set up the cluster environment in the same way as for an Ethernet driver (i. e. hme driver). Follow "Setting up the Network" in the SynfinityCluster manual or PRIMECLUSTER manual. Note that the GigabitEthernet driver resource name is "fjgi".

## C.3 Notes

- SynfinityCluster 2.0 or later or PRIMECLUSTER 4.1 or later is required when using the FUJITSU PCI GigabitEthernet interface. If an earlier version of cluster software is used, GigabitEthernet cannot be used as the private LAN or for IP address fail-over on a public LAN.
- When using a FUJITSU PCI GigabitEthernet interface as a SynfinityCluster private LAN or as the PRIMECLUSTER cluster interconnect, execute the following command before setting up the cluster (example: fjgi0).

```
# ifconfig fjgi0 plumb
```

- A FUJITSU PCI GigabitEthernet interface used as a VLAN interface cannot be used for the private LAN or the cluster interconnect.

## Appendix D PCI Slot Number and Device Name

The appendix provides the PCI slot number and device name matrix for the following PRIMEPOWER/GP7000F models.

- GP7000F Model200
- GP7000F Model200R
- GP7000F Model400A/400R
- GP7000F Model400
- GP7000F Model600
- GP7000F Model600R
- PRIMEPOWER 1 (1U rackmount)
- PRIMEPOWER 100 (pedestal)
- PRIMEPOWER 200 (pedestal, rackmount)
- PRIMEPOWER 250 (pedestal)
- PRIMEPOWER 250 (2U rack-mount)
- PRIMEPOWER 250 (4U rack-mount)
- PRIMEPOWER 400 (4U rackmount)
- PRIMEPOWER 400 (pedestal, 10U rackmount)
- PRIMEPOWER 400[PP040BR1U] (pedestal, 10U rackmount)
- PRIMEPOWER 450 (pedestal, 7U rack-mount)
- PRIMEPOWER 450 (4U rack-mount)
- PRIMEPOWER 600 (pedestal, rackmount)
- PRIMEPOWER 650 (rackmount)
- PRIMEPOWER 800 (pedestal)
- PRIMEPOWER 850 (rackmount)
- PRIMEPOWER 900 (Physical Partitioning)
- PRIMEPOWER 900 (Extended Partitioning)
- PRIMEPOWER 1000, GP7000F Model1000
- PRIMEPOWER 1500 (Physical Partitioning)
- PRIMEPOWER 1500 (Extended Partitioning)
- PRIMEPOWER 2000, GP7000F Model2000
- PRIMEPOWER 2500/HPC2500 (Physical Partitioning)
- PRIMEPOWER 2500 (Extended Partitioning)
- SPARC Enterprise M4000/M5000
- SPARC Enterprise M8000/M9000

**Table D.1 Slot Number and Device Name Matrix**

- GP7000F Model200

Slot Number	Device Name
PCI#1	/pci@1f, 2000/*@1
PCI#2	/pci@1d, 2000/*@1
PCI#3	/pci@1f, 4000/*@2
PCI#4	/pci@1d, 4000/*@2
PCI#5	/pci@1d, 4000/*@4
PCI#6	/pci@1d, 4000/*@5



● GP7000F Model200R

Slot Number	Device Name
PCI#1	/pci@17, 2000/*@1
PCI#2	/pci@16, 2000/*@1
PCI#3	/pci@17, 4000/*@2
PCI#4	/pci@16, 4000/*@2
PCI#5	/pci@16, 4000/*@4
PCI#6	/pci@16, 4000/*@5

● GP7000F Model400A/400R

Slot Number	Device Name
00-PCI#1	/pci@17, 2000/*@1
00-PCI#2	/pci@16, 2000/*@1
00-PCI#3	/pci@17, 4000/*@2
00-PCI#4	/pci@16, 4000/*@2
00-PCI#5	/pci@16, 4000/*@4
00-PCI#6	/pci@16, 4000/*@5
01-PCI#1	/pci@15, 2000/*@1
01-PCI#2	/pci@14, 2000/*@1
01-PCI#3	/pci@15, 4000/*@2
01-PCI#4	/pci@14, 4000/*@2
01-PCI#5	/pci@14, 4000/*@4
01-PCI#6	/pci@14, 4000/*@5

● GP7000F Model400

Slot Number	Device Name
PCI#1	/pci@1f, 2000/*@1
PCI#2	/pci@1e, 4000/*@2
PCI#3	/pci@1e, 4000/*@3
PCI#4	/pci@1e, 4000/*@4
PCI#5	/pci@1e, 2000/*@1
PCI#6	/pci@1d, 4000/*@2
PCI#7	/pci@1d, 4000/*@3
PCI#8	/pci@1d, 4000/*@4
PCI#9	/pci@1d, 2000/*@1

● GP7000F Model600

Slot Number	Device Name
PCI#1	/pci@1f, 2000/*@1
PCI#2	/pci@1e, 4000/*@2
PCI#3	/pci@1e, 4000/*@3
PCI#4	/pci@1e, 4000/*@4
PCI#5	/pci@1e, 2000/*@1
PCI#6	/pci@1d, 4000/*@2
PCI#7	/pci@1d, 4000/*@3
PCI#8	/pci@1d, 4000/*@4
PCI#9	/pci@1d, 2000/*@1
PCI#10	/pci@1d, 4000/*@2
PCI#11	/pci@1d, 4000/*@3

Slot Number	Device Name
PCI#12	/pci@1c, 4000/*@4
PCI#13	/pci@1c, 2000/*@1

● GP7000F Model600R

Slot Number	Device Name
PCI#1	/pci@1f, 4000/*@2
PCI#2	/pci@1f, 2000/*@1
PCI#3	/pci@1c, 4000/*@2
PCI#4	/pci@1e, 4000/*@2
PCI#5	/pci@1e, 4000/*@3
PCI#6	/pci@1e, 4000/*@4
PCI#7	/pci@1c, 2000/*@1
PCI#8	/pci@1d, 4000/*@2
PCI#9	/pci@1d, 4000/*@3
PCI#10	/pci@1d, 4000/*@4
PCI#11	/pci@1d, 2000/*@1
PCI#12	/pci@1e, 2000/*@1

● PRIMEPOWER 1 (1U rackmount)

Slot Number	Device Name
PCI#1	/pci@1f, 0/pci@1/*@2

● PRIMEPOWER 100 (pedestal)

Slot Number	Device Name
PCI#1	/pci@1f, 0/pci@1/*@2
PCI#2	/pci@1f, 0/pci@1/*@3
PCI#3	/pci@1f, 0/pci@1, 1/*@4

● PRIMEPOWER 200 (pedestal, rackmount)

Slot Number	Device Name
PCI#1	/pci@17, 2000/*@1
PCI#2	/pci@16, 2000/*@1
PCI#3	/pci@17, 4000/*@2
PCI#4	/pci@16, 4000/*@2
PCI#5	/pci@16, 4000/*@4
PCI#6	/pci@16, 4000/*@5

● PRIMEPOWER 250 (pedestal)

Slot Number	Device Name
PCI#0	/pci@80, 2000/*@1
PCI#1	/pci@80, 2000/*@2
PCI#2	/pci@80, 4000/*@3
PCI#3	/pci@80, 4000/*@4
PCI#4	/pci@80, 4000/*@5
PCI#5	/pci@83, 4000/*@3

● PRIMEPOWER 250 (2U rack-mount)

Slot Number	Device Name
PCI#0	/pci@83,2000/*@2
PCI#1	/pci@83,4000/*@3
PCI#2	/pci@83,4000/*@4

● PRIMEPOWER 250 (4U rack-mount)

Slot Number	Device Name
PCI#0	/pci@80,2000/*@1
PCI#1	/pci@80,2000/*@2
PCI#2	/pci@80,4000/*@3
PCI#3	/pci@80,4000/*@4
PCI#4	/pci@80,4000/*@5
PCI#5	/pci@83,4000/*@3

● PRIMEPOWER 400 (4U rackmount)

Slot Number	Device Name
PCI#1	/pci@15,2000/*@1
PCI#2	/pci@15,4000/*@2
PCI#3	/pci@15,4000/*@4
PCI#4	/pci@17,2000/*@1
PCI#5	/pci@15,4000/*@5
PCI#6	/pci@17,4000/*@2

● PRIMEPOWER 400 (pedestal,10U rackmount)

Slot Number	Device Name
PCI#1	/pci@16,4000/*@5
PCI#2	/pci@16,4000/*@4
PCI#3	/pci@16,4000/*@2
PCI#4	/pci@15,2000/*@1
PCI#5	/pci@16,2000/*@1
PCI#6	/pci@17,2000/*@1
PCI#7	/pci@15,4000/*@5
PCI#8	/pci@15,4000/*@4
PCI#9	/pci@15,4000/*@2
PCI#10	/pci@17,4000/*@2

● PRIMEPOWER 400[PP040BR1U] (pedestal,10U rackmount)

Slot Number	Device Name
00-PCI#1	/pci@15,2000/*@1
00-PCI#2	/pci@17,2000/*@1
00-PCI#3	/pci@15,4000/*@2
00-PCI#4	/pci@15,4000/*@4
00-PCI#5	/pci@15,4000/*@5
00-PCI#6	/pci@17,4000/*@2
01-PCI#2	/pci@13,2000/*@1
01-PCI#3	/pci@11,4000/*@2
01-PCI#4	/pci@11,4000/*@4

Slot Number	Device Name
01-PCI#5	/pci@11, 4000/*@5

● PRIMEPOWER 450 (pedestal, 7U rack-mount)

Slot Number	Device Name
PCI#0	/pci@80, 2000/*@1
PCI#1	/pci@80, 4000/*@3
PCI#2	/pci@80, 4000/*@4
PCI#3	/pci@80, 4000/*@5
PCI#4	/pci@82, 2000/*@1
PCI#5	/pci@82, 4000/*@3
PCI#6	/pci@82, 4000/*@4
PCI#7	/pci@82, 4000/*@5
PCI#8	/pci@83, 4000/*@3

● PRIMEPOWER 450 (4U rack-mount)

Slot Number	Device Name
PCI#0	/pci@80, 2000/*@1
PCI#1	/pci@80, 2000/*@2
PCI#2	/pci@80, 4000/*@3
PCI#3	/pci@80, 4000/*@4
PCI#4	/pci@80, 4000/*@5
PCI#5	/pci@83, 4000/*@3

● PRIMEPOWER 600 (pedestal, rackmount)

Slot Number	Device Name
00-PCI#1	/pci@15, 2000/*@1
00-PCI#2	/pci@17, 2000/*@1
00-PCI#3	/pci@15, 4000/*@2
00-PCI#4	/pci@15, 4000/*@4
00-PCI#5	/pci@15, 4000/*@5
00-PCI#6	/pci@17, 4000/*@2
01-PCI#1	/pci@11, 2000/*@1
01-PCI#2	/pci@13, 2000/*@1
01-PCI#3	/pci@11, 4000/*@2
01-PCI#4	/pci@11, 4000/*@4
01-PCI#5	/pci@11, 4000/*@5
01-PCI#6	/pci@13, 4000/*@2

● PRIMEPOWER 650 (rackmount)

Board Number	Slot Number	Device Name
SB#0	PCI#0	/pci@84,2000/*@1
	PCI#1	/pci@84,4000/*@1
	PCI#2	/pci@84,4000/*@2
	PCI#3	/pci@84,4000/*@3
	PCI#4	/pci@85,2000/*@1
	PCI#5	/pci@85,4000/*@1
	PCI#6	/pci@85,4000/*@2
PCI-BOX#0	PCI#7	/pci@85,4000/*@3
	PCI#0	/pci@80,2000/*@1
	PCI#1	/pci@80,4000/*@1
	PCI#2	/pci@80,4000/*@2
	PCI#3	/pci@80,4000/*@3
	PCI#4	/pci@81,2000/*@1
	PCI#5	/pci@81,4000/*@1
	PCI#6	/pci@81,4000/*@2
	PCI#7	/pci@81,4000/*@3
	PCI#8	/pci@82,2000/*@1
	PCI#9	/pci@82,4000/*@1
	PCI#10	/pci@82,4000/*@2
	PCI#11	/pci@82,4000/*@3

● PRIMEPOWER 800 (pedestal)

Board Number	Slot Number	Device Name
SB#0	PCI#0A	/pci@80,2000/*@1
	PCI#0B	/pci@80,4000/*@2
	PCI#1A	/pci@81,2000/*@1
	PCI#1B	/pci@81,4000/*@2
	PCI#3A	/pci@83,2000/*@1
	PCI#3B	/pci@83,4000/*@2
SB#1	PCI#0A	/pci@88,2000/*@1
	PCI#0B	/pci@88,4000/*@2
	PCI#1A	/pci@89,2000/*@1
	PCI#1B	/pci@89,4000/*@2
	PCI#3A	/pci@8b,2000/*@1
	PCI#3B	/pci@8b,4000/*@2
SB#2	PCI#0A	/pci@90,2000/*@1
	PCI#0B	/pci@90,4000/*@2
	PCI#1A	/pci@91,2000/*@1
	PCI#1B	/pci@91,4000/*@2
	PCI#3A	/pci@93,2000/*@1
	PCI#3B	/pci@93,4000/*@2
SB#3	PCI#0A	/pci@98,2000/*@1
	PCI#0B	/pci@98,4000/*@2
	PCI#1A	/pci@99,2000/*@1
	PCI#1B	/pci@99,4000/*@2
	PCI#3A	/pci@9b,2000/*@1
	PCI#3B	/pci@9b,4000/*@2

## ● PRIMEPOWER 850 (rackmount)

Board Number	Slot Number	Device Name
SB#0	PCI#0	/pci@84, 2000/*@1
	PCI#1	/pci@84, 4000/*@1
	PCI#2	/pci@84, 4000/*@2
	PCI#3	/pci@84, 4000/*@3
	PCI#4	/pci@85, 2000/*@1
	PCI#5	/pci@85, 4000/*@1
	PCI#6	/pci@85, 4000/*@2
	PCI#7	/pci@85, 4000/*@3
PCI-BOX#0	PCI#0	/pci@80, 2000/*@1
	PCI#1	/pci@80, 4000/*@1
	PCI#2	/pci@80, 4000/*@2
	PCI#3	/pci@80, 4000/*@3
	PCI#4	/pci@81, 2000/*@1
	PCI#5	/pci@81, 4000/*@1
	PCI#6	/pci@81, 4000/*@2
	PCI#7	/pci@81, 4000/*@3
	PCI#8	/pci@82, 2000/*@1
	PCI#9	/pci@82, 4000/*@1
	PCI#10	/pci@82, 4000/*@2
	PCI#11	/pci@82, 4000/*@3
SB#1	PCI#0	/pci@8c, 2000/*@1
	PCI#1	/pci@8c, 4000/*@1
	PCI#2	/pci@8c, 4000/*@2
	PCI#3	/pci@8c, 4000/*@3
	PCI#4	/pci@8d, 2000/*@1
	PCI#5	/pci@8d, 4000/*@1
	PCI#6	/pci@8d, 4000/*@2
	PCI#7	/pci@8d, 4000/*@3
PCI-BOX#1	PCI#0	/pci@88, 2000/*@1
	PCI#1	/pci@88, 4000/*@1
	PCI#2	/pci@88, 4000/*@2
	PCI#3	/pci@88, 4000/*@3
	PCI#4	/pci@89, 2000/*@1
	PCI#5	/pci@89, 4000/*@1
	PCI#6	/pci@89, 4000/*@2
	PCI#7	/pci@89, 4000/*@3
	PCI#8	/pci@8a, 2000/*@1
	PCI#9	/pci@8a, 4000/*@1
	PCI#10	/pci@8a, 4000/*@2
	PCI#11	/pci@8a, 4000/*@3

● PRIMEPOWER 900 (Physical Partitioning)

Board Number;	Slot Number	Device Name
SB#0	PCI#0	/pci@80,2000/*@1
	PCI#1	/pci@80,4000/*@2
	PCI#2	/pci@81,2000/*@1
	PCI#3	/pci@81,4000/*@2
	PCI#4	/pci@81,4000/*@3
	PCI#5	/pci@82,2000/*@1
	PCI#6	/pci@82,4000/*@2
PCI-BOX#0 (connected to SB#0)	PCI#7	/pci@82,4000/*@3
	PCI#0	/pci@84,2000/*@1
	PCI#1	/pci@84,4000/*@2
	PCI#2	/pci@84,4000/*@3
	PCI#3	/pci@85,2000/*@1
	PCI#4	/pci@85,4000/*@2
	PCI#5	/pci@85,4000/*@3
	PCI#6	/pci@85,4000/*@4
	PCI#7	/pci@86,2000/*@1
SB#1	PCI#8	/pci@86,4000/*@2
	PCI#9	/pci@86,4000/*@3
	PCI#0	/pci@88,2000/*@1
	PCI#1	/pci@88,4000/*@2
	PCI#2	/pci@89,2000/*@1
	PCI#3	/pci@89,4000/*@2
	PCI#4	/pci@89,4000/*@3
PCI-BOX#0 (connected to SB#1)	PCI#5	/pci@8a,2000/*@1
	PCI#6	/pci@8a,4000/*@2
	PCI#7	/pci@8a,4000/*@3
	PCI#0	/pci@8c,2000/*@1
	PCI#1	/pci@8c,4000/*@2
	PCI#2	/pci@8c,4000/*@3
	PCI#3	/pci@8d,2000/*@1
	PCI#4	/pci@8d,4000/*@2
	PCI#5	/pci@8d,4000/*@3
PCI#6	/pci@8d,4000/*@4	
PCI#7	/pci@8e,2000/*@1	
PCI#8	/pci@8e,4000/*@2	
PCI#9	/pci@8e,4000/*@3	

● PRIMEPOWER 900 (Extended Partitioning)

Board Number;	Slot Number	Device Name
SB#0	PCI#0	/pci@80,2000/*@1
	PCI#1	/pci@80,4000/*@2
	PCI#2	/pci@81,2000/*@1
	PCI#3	/pci@81,4000/*@2
	PCI#4	/pci@81,4000/*@3
	PCI#5	/pci@a2,2000/*@1
	PCI#6	/pci@a2,4000/*@2
PCI#7	/pci@a2,4000/*@3	

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#0)	PCI#0	/pci@c4, 2000/*@1
	PCI#1	/pci@c4, 4000/*@2
	PCI#2	/pci@c4, 4000/*@3
	PCI#3	/pci@c5, 2000/*@1
	PCI#4	/pci@c5, 4000/*@2
	PCI#5	/pci@c5, 4000/*@3
	PCI#6	/pci@c5, 4000/*@4
	PCI#7	/pci@e6, 2000/*@1
	PCI#8	/pci@e6, 4000/*@2
	PCI#9	/pci@e6, 4000/*@3
SB#1	PCI#0	/pci@88, 2000/*@1
	PCI#1	/pci@88, 4000/*@2
	PCI#2	/pci@89, 2000/*@1
	PCI#3	/pci@89, 4000/*@2
	PCI#4	/pci@89, 4000/*@3
	PCI#5	/pci@aa, 2000/*@1
	PCI#6	/pci@aa, 4000/*@2
	PCI#7	/pci@aa, 4000/*@3
PCI-BOX#0 (connected to SB#1)	PCI#0	/pci@cc, 2000/*@1
	PCI#1	/pci@cc, 4000/*@2
	PCI#2	/pci@cc, 4000/*@3
	PCI#3	/pci@cd, 2000/*@1
	PCI#4	/pci@cd, 4000/*@2
	PCI#5	/pci@cd, 4000/*@3
	PCI#6	/pci@cd, 4000/*@4
	PCI#7	/pci@ee, 2000/*@1
	PCI#8	/pci@ee, 4000/*@2
	PCI#9	/pci@ee, 4000/*@3

● PRIMEPOWER 1000, GP7000F Model1100

Board Number	Slot Number	Device Name
SB#0	PCI#0A	/pci@80, 2000/*@1
	PCI#0B	/pci@80, 4000/*@2
	PCI#1A	/pci@81, 2000/*@1
	PCI#1B	/pci@81, 4000/*@2
	PCI#3A	/pci@83, 2000/*@1
	PCI#3B	/pci@83, 4000/*@2
SB#1	PCI#0A	/pci@88, 2000/*@1
	PCI#0B	/pci@88, 4000/*@2
	PCI#1A	/pci@89, 2000/*@1
	PCI#1B	/pci@89, 4000/*@2
	PCI#3A	/pci@8b, 2000/*@1
	PCI#3B	/pci@8b, 4000/*@2



Board Number	Slot Number	Device Name
SB#2	PCI#0A	/pci@90, 2000/*@1
	PCI#0B	/pci@90, 4000/*@2
	PCI#1A	/pci@91, 2000/*@1
	PCI#1B	/pci@91, 4000/*@2
	PCI#3A	/pci@93, 2000/*@1
	PCI#3B	/pci@93, 4000/*@2
SB#3	PCI#0A	/pci@98, 2000/*@1
	PCI#0B	/pci@98, 4000/*@2
	PCI#1A	/pci@99, 2000/*@1
	PCI#1B	/pci@99, 4000/*@2
	PCI#3A	/pci@9b, 2000/*@1
	PCI#3B	/pci@9b, 4000/*@2
SB#4	PCI#0A	/pci@a0, 2000/*@1
	PCI#0B	/pci@a0, 4000/*@2
	PCI#1A	/pci@a1, 2000/*@1
	PCI#1B	/pci@a1, 4000/*@2
	PCI#3A	/pci@a3, 2000/*@1
	PCI#3B	/pci@a3, 4000/*@2
SB#5	PCI#0A	/pci@a8, 2000/*@1
	PCI#0B	/pci@a8, 4000/*@2
	PCI#1A	/pci@a9, 2000/*@1
	PCI#1B	/pci@a9, 4000/*@2
	PCI#3A	/pci@ab, 2000/*@1
	PCI#3B	/pci@ab, 4000/*@2
SB#6	PCI#0A	/pci@b0, 2000/*@1
	PCI#0B	/pci@b0, 4000/*@2
	PCI#1A	/pci@b1, 2000/*@1
	PCI#1B	/pci@b1, 4000/*@2
	PCI#3A	/pci@b3, 2000/*@1
	PCI#3B	/pci@b3, 4000/*@2
SB#7	PCI#0A	/pci@b8, 2000/*@1
	PCI#0B	/pci@b8, 4000/*@2
	PCI#1A	/pci@b9, 2000/*@1
	PCI#1B	/pci@b9, 4000/*@2
	PCI#3A	/pci@bb, 2000/*@1
	PCI#3B	/pci@bb, 4000/*@2

● PRIMEPOWER 1500 (Physical Partitioning)

Board Number;	Slot Number	Device Name
SB#0	PCI#0	/pci@80, 2000/*@1
	PCI#1	/pci@80, 4000/*@2
	PCI#2	/pci@81, 2000/*@1
	PCI#3	/pci@81, 4000/*@2
	PCI#4	/pci@81, 4000/*@3
	PCI#5	/pci@82, 2000/*@1
	PCI#6	/pci@82, 4000/*@2
	PCI#7	/pci@82, 4000/*@3

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#0)	PCI#0	/pci@84, 2000/*@1
	PCI#1	/pci@84, 4000/*@2
	PCI#2	/pci@84, 4000/*@3
	PCI#3	/pci@85, 2000/*@1
	PCI#4	/pci@85, 4000/*@2
	PCI#5	/pci@85, 4000/*@3
	PCI#6	/pci@85, 4000/*@4
	PCI#7	/pci@86, 2000/*@1
	PCI#8	/pci@86, 4000/*@2
	PCI#9	/pci@86, 4000/*@3
SB#1	PCI#0	/pci@88, 2000/*@1
	PCI#1	/pci@88, 4000/*@2
	PCI#2	/pci@89, 2000/*@1
	PCI#3	/pci@89, 4000/*@2
	PCI#4	/pci@89, 4000/*@3
	PCI#5	/pci@8a, 2000/*@1
	PCI#6	/pci@8a, 4000/*@2
	PCI#7	/pci@8a, 4000/*@3
PCI-BOX#0 (connected to SB#1)	PCI#0	/pci@8c, 2000/*@1
	PCI#1	/pci@8c, 4000/*@2
	PCI#2	/pci@8c, 4000/*@3
	PCI#3	/pci@8d, 2000/*@1
	PCI#4	/pci@8d, 4000/*@2
	PCI#5	/pci@8d, 4000/*@3
	PCI#6	/pci@8d, 4000/*@4
	PCI#7	/pci@8e, 2000/*@1
	PCI#8	/pci@8e, 4000/*@2
	PCI#9	/pci@8e, 4000/*@3
SB#2	PCI#0	/pci@90, 2000/*@1
	PCI#1	/pci@90, 4000/*@2
	PCI#2	/pci@91, 2000/*@1
	PCI#3	/pci@91, 4000/*@2
	PCI#4	/pci@91, 4000/*@3
	PCI#5	/pci@92, 2000/*@1
	PCI#6	/pci@92, 4000/*@2
	PCI#7	/pci@92, 4000/*@3
PCI-BOX#0 (connected to SB#2)	PCI#0	/pci@94, 2000/*@1
	PCI#1	/pci@94, 4000/*@2
	PCI#2	/pci@94, 4000/*@3
	PCI#3	/pci@95, 2000/*@1
	PCI#4	/pci@95, 4000/*@2
	PCI#5	/pci@95, 4000/*@3
	PCI#6	/pci@95, 4000/*@4
	PCI#7	/pci@96, 2000/*@1
	PCI#8	/pci@96, 4000/*@2
	PCI#9	/pci@96, 4000/*@3

Board Number;	Slot Number	Device Name
SB#3	PCI#0	/pci@98, 2000/*@1
	PCI#1	/pci@98, 4000/*@2
	PCI#2	/pci@99, 2000/*@1
	PCI#3	/pci@99, 4000/*@2
	PCI#4	/pci@99, 4000/*@3
	PCI#5	/pci@9a, 2000/*@1
	PCI#6	/pci@9a, 4000/*@2
PCI-BOX#0 (connected to SB#3)	PCI#7	/pci@9a, 4000/*@3
	PCI#0	/pci@9c, 2000/*@1
	PCI#1	/pci@9c, 4000/*@2
	PCI#2	/pci@9c, 4000/*@3
	PCI#3	/pci@9d, 2000/*@1
	PCI#4	/pci@9d, 4000/*@2
	PCI#5	/pci@9d, 4000/*@3
	PCI#6	/pci@9d, 4000/*@4
	PCI#7	/pci@9e, 2000/*@1
	PCI#8	/pci@9e, 4000/*@2
PCI#9	/pci@9e, 4000/*@3	

● PRIMEPOWER 1500 (Extended Partitioning)

Board Number;	Slot Number	Device Name
SB#0	PCI#0	/pci@80, 2000/*@1
	PCI#1	/pci@80, 4000/*@2
	PCI#2	/pci@81, 2000/*@1
	PCI#3	/pci@81, 4000/*@2
	PCI#4	/pci@81, 4000/*@3
	PCI#5	/pci@a2, 2000/*@1
	PCI#6	/pci@a2, 4000/*@2
PCI-BOX#0 (connected to SB#0)	PCI#7	/pci@a2, 4000/*@3
	PCI#0	/pci@c4, 2000/*@1
	PCI#1	/pci@c4, 4000/*@2
	PCI#2	/pci@c4, 4000/*@3
	PCI#3	/pci@c5, 2000/*@1
	PCI#4	/pci@c5, 4000/*@2
	PCI#5	/pci@c5, 4000/*@3
	PCI#6	/pci@c5, 4000/*@4
	PCI#7	/pci@e6, 2000/*@1
	PCI#8	/pci@e6, 4000/*@2
PCI#9	/pci@e6, 4000/*@3	
SB#1	PCI#0	/pci@88, 2000/*@1
	PCI#1	/pci@88, 4000/*@2
	PCI#2	/pci@89, 2000/*@1
	PCI#3	/pci@89, 4000/*@2
	PCI#4	/pci@89, 4000/*@3
	PCI#5	/pci@aa, 2000/*@1
	PCI#6	/pci@aa, 4000/*@2
PCI#7	/pci@aa, 4000/*@3	

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#1)	PCI#0	/pci@cc, 2000/*@1
	PCI#1	/pci@cc, 4000/*@2
	PCI#2	/pci@cc, 4000/*@3
	PCI#3	/pci@cd, 2000/*@1
	PCI#4	/pci@cd, 4000/*@2
	PCI#5	/pci@cd, 4000/*@3
	PCI#6	/pci@cd, 4000/*@4
	PCI#7	/pci@ee, 2000/*@1
	PCI#8	/pci@ee, 4000/*@2
	PCI#9	/pci@ee, 4000/*@3
SB#2	PCI#0	/pci@90, 2000/*@1
	PCI#1	/pci@90, 4000/*@2
	PCI#2	/pci@91, 2000/*@1
	PCI#3	/pci@91, 4000/*@2
	PCI#4	/pci@91, 4000/*@3
	PCI#5	/pci@b2, 2000/*@1
	PCI#6	/pci@b2, 4000/*@2
	PCI#7	/pci@b2, 4000/*@3
PCI-BOX#0 (connected to SB#2)	PCI#0	/pci@d4, 2000/*@1
	PCI#1	/pci@d4, 4000/*@2
	PCI#2	/pci@d4, 4000/*@3
	PCI#3	/pci@d5, 2000/*@1
	PCI#4	/pci@d5, 4000/*@2
	PCI#5	/pci@d5, 4000/*@3
	PCI#6	/pci@d5, 4000/*@4
	PCI#7	/pci@f6, 2000/*@1
	PCI#8	/pci@f6, 4000/*@2
	PCI#9	/pci@f6, 4000/*@3
SB#3	PCI#0	/pci@98, 2000/*@1
	PCI#1	/pci@98, 4000/*@2
	PCI#2	/pci@99, 2000/*@1
	PCI#3	/pci@99, 4000/*@2
	PCI#4	/pci@99, 4000/*@3
	PCI#5	/pci@ba, 2000/*@1
	PCI#6	/pci@ba, 4000/*@2
	PCI#7	/pci@ba, 4000/*@3
PCI-BOX#0 (connected to SB#3)	PCI#0	/pci@dc, 2000/*@1
	PCI#1	/pci@dc, 4000/*@2
	PCI#2	/pci@dc, 4000/*@3
	PCI#3	/pci@dd, 2000/*@1
	PCI#4	/pci@dd, 4000/*@2
	PCI#5	/pci@dd, 4000/*@3
	PCI#6	/pci@dd, 4000/*@4
	PCI#7	/pci@fe, 2000/*@1
	PCI#8	/pci@fe, 4000/*@2
	PCI#9	/pci@fe, 4000/*@3

● PRIMEPOWER 2000, GP7000F Model2000

Board Number	Slot Number	Device Name
SB#0	PCI#0A	/pci@80,2000/*@1
	PCI#0B	/pci@80,4000/*@2
	PCI#1A	/pci@81,2000/*@1
	PCI#1B	/pci@81,4000/*@2
	PCI#3A	/pci@83,2000/*@1
	PCI#3B	/pci@83,4000/*@2
SB#1	PCI#0A	/pci@84,2000/*@1
	PCI#0B	/pci@84,4000/*@2
	PCI#1A	/pci@85,2000/*@1
	PCI#1B	/pci@85,4000/*@2
	PCI#3A	/pci@87,2000/*@1
	PCI#3B	/pci@87,4000/*@2
SB#2	PCI#0A	/pci@88,2000/*@1
	PCI#0B	/pci@88,4000/*@2
	PCI#1A	/pci@89,2000/*@1
	PCI#1B	/pci@89,4000/*@2
	PCI#3A	/pci@8b,2000/*@1
	PCI#3B	/pci@8b,4000/*@2
SB#3	PCI#0A	/pci@8c,2000/*@1
	PCI#0B	/pci@8c,4000/*@2
	PCI#1A	/pci@8d,2000/*@1
	PCI#1B	/pci@8d,4000/*@2
	PCI#3A	/pci@8f,2000/*@1
	PCI#3B	/pci@8f,4000/*@2
SB#4	PCI#0A	/pci@90,2000/*@1
	PCI#0B	/pci@90,4000/*@2
	PCI#1A	/pci@91,2000/*@1
	PCI#1B	/pci@91,4000/*@2
	PCI#3A	/pci@93,2000/*@1
	PCI#3B	/pci@93,4000/*@2
SB#5	PCI#0A	/pci@94,2000/*@1
	PCI#0B	/pci@94,4000/*@2
	PCI#1A	/pci@95,2000/*@1
	PCI#1B	/pci@95,4000/*@2
	PCI#3A	/pci@97,2000/*@1
	PCI#3B	/pci@97,4000/*@2
SB#6	PCI#0A	/pci@98,2000/*@1
	PCI#0B	/pci@98,4000/*@2
	PCI#1A	/pci@99,2000/*@1
	PCI#1B	/pci@99,4000/*@2
	PCI#3A	/pci@9b,2000/*@1
	PCI#3B	/pci@9b,4000/*@2
SB#7	PCI#0A	/pci@9c,2000/*@1
	PCI#0B	/pci@9c,4000/*@2
	PCI#1A	/pci@9d,2000/*@1
	PCI#1B	/pci@9d,4000/*@2
	PCI#3A	/pci@9f,2000/*@1
	PCI#3B	/pci@9f,4000/*@2

Board Number	Slot Number	Device Name
SB#8	PCI#0A	/pci@a0,2000/*@1
	PCI#0B	/pci@a0,4000/*@2
	PCI#1A	/pci@a1,2000/*@1
	PCI#1B	/pci@a1,4000/*@2
	PCI#3A	/pci@a3,2000/*@1
	PCI#3B	/pci@a3,4000/*@2
SB#9	PCI#0A	/pci@a4,2000/*@1
	PCI#0B	/pci@a4,4000/*@2
	PCI#1A	/pci@a5,2000/*@1
	PCI#1B	/pci@a5,4000/*@2
	PCI#3A	/pci@a7,2000/*@1
	PCI#3B	/pci@a7,4000/*@2
SB#10	PCI#0A	/pci@a8,2000/*@1
	PCI#0B	/pci@a8,4000/*@2
	PCI#1A	/pci@a9,2000/*@1
	PCI#1B	/pci@a9,4000/*@2
	PCI#3A	/pci@ab,2000/*@1
	PCI#3B	/pci@ab,4000/*@2
SB#11	PCI#0A	/pci@ac,2000/*@1
	PCI#0B	/pci@ac,4000/*@2
	PCI#1A	/pci@ad,2000/*@1
	PCI#1B	/pci@ad,4000/*@2
	PCI#3A	/pci@af,2000/*@1
	PCI#3B	/pci@af,4000/*@2
SB#12	PCI#0A	/pci@b0,2000/*@1
	PCI#0B	/pci@b0,4000/*@2
	PCI#1A	/pci@b1,2000/*@1
	PCI#1B	/pci@b1,4000/*@2
	PCI#3A	/pci@b3,2000/*@1
	PCI#3B	/pci@b3,4000/*@2
SB#13	PCI#0A	/pci@b4,2000/*@1
	PCI#0B	/pci@b4,4000/*@2
	PCI#1A	/pci@b5,2000/*@1
	PCI#1B	/pci@b5,4000/*@2
	PCI#3A	/pci@b7,2000/*@1
	PCI#3B	/pci@b7,4000/*@2
SB#14	PCI#0A	/pci@b8,2000/*@1
	PCI#0B	/pci@b8,4000/*@2
	PCI#1A	/pci@b9,2000/*@1
	PCI#1B	/pci@b9,4000/*@2
	PCI#3A	/pci@bb,2000/*@1
	PCI#3B	/pci@bb,4000/*@2
SB#15	PCI#0A	/pci@bc,2000/*@1
	PCI#0B	/pci@bc,4000/*@2
	PCI#1A	/pci@bd,2000/*@1
	PCI#1B	/pci@bd,4000/*@2
	PCI#3A	/pci@bf,2000/*@1
	PCI#3B	/pci@bf,4000/*@2

Appendix D PCI Slot Number and Device Name

Board Number	Slot Number	Device Name
SB#16	PCI#0A	/pci@c0, 2000/*@1
	PCI#0B	/pci@c0, 4000/*@2
	PCI#1A	/pci@c1, 2000/*@1
	PCI#1B	/pci@c1, 4000/*@2
	PCI#3A	/pci@c3, 2000/*@1
	PCI#3B	/pci@c3, 4000/*@2
SB#17	PCI#0A	/pci@c4, 2000/*@1
	PCI#0B	/pci@c4, 4000/*@2
	PCI#1A	/pci@c5, 2000/*@1
	PCI#1B	/pci@c5, 4000/*@2
	PCI#3A	/pci@c7, 2000/*@1
	PCI#3B	/pci@c7, 4000/*@2
SB#18	PCI#0A	/pci@c8, 2000/*@1
	PCI#0B	/pci@c8, 4000/*@2
	PCI#1A	/pci@c9, 2000/*@1
	PCI#1B	/pci@c9, 4000/*@2
	PCI#3A	/pci@cb, 2000/*@1
	PCI#3B	/pci@cb, 4000/*@2
SB#19	PCI#0A	/pci@cc, 2000/*@1
	PCI#0B	/pci@cc, 4000/*@2
	PCI#1A	/pci@cd, 2000/*@1
	PCI#1B	/pci@cd, 4000/*@2
	PCI#3A	/pci@cf, 2000/*@1
	PCI#3B	/pci@cf, 4000/*@2
SB#20	PCI#0A	/pci@d0, 2000/*@1
	PCI#0B	/pci@d0, 4000/*@2
	PCI#1A	/pci@d1, 2000/*@1
	PCI#1B	/pci@d1, 4000/*@2
	PCI#3A	/pci@d3, 2000/*@1
	PCI#3B	/pci@d3, 4000/*@2
SB#21	PCI#0A	/pci@d4, 2000/*@1
	PCI#0B	/pci@d4, 4000/*@2
	PCI#1A	/pci@d5, 2000/*@1
	PCI#1B	/pci@d5, 4000/*@2
	PCI#3A	/pci@d7, 2000/*@1
	PCI#3B	/pci@d7, 4000/*@2
SB#22	PCI#0A	/pci@d8, 2000/*@1
	PCI#0B	/pci@d8, 4000/*@2
	PCI#1A	/pci@d9, 2000/*@1
	PCI#1B	/pci@d9, 4000/*@2
	PCI#3A	/pci@db, 2000/*@1
	PCI#3B	/pci@db, 4000/*@2
SB#23	PCI#0A	/pci@dc, 2000/*@1
	PCI#0B	/pci@dc, 4000/*@2
	PCI#1A	/pci@dd, 2000/*@1
	PCI#1B	/pci@dd, 4000/*@2
	PCI#3A	/pci@df, 2000/*@1
	PCI#3B	/pci@df, 4000/*@2

Board Number	Slot Number	Device Name
SB#24	PCI#0A	/pci@e0, 2000/*@1
	PCI#0B	/pci@e0, 4000/*@2
	PCI#1A	/pci@e1, 2000/*@1
	PCI#1B	/pci@e1, 4000/*@2
	PCI#3A	/pci@e3, 2000/*@1
	PCI#3B	/pci@e3, 4000/*@2
SB#25	PCI#0A	/pci@e4, 2000/*@1
	PCI#0B	/pci@e4, 4000/*@2
	PCI#1A	/pci@e5, 2000/*@1
	PCI#1B	/pci@e5, 4000/*@2
	PCI#3A	/pci@e7, 2000/*@1
	PCI#3B	/pci@e7, 4000/*@2
SB#26	PCI#0A	/pci@e8, 2000/*@1
	PCI#0B	/pci@e8, 4000/*@2
	PCI#1A	/pci@e9, 2000/*@1
	PCI#1B	/pci@e9, 4000/*@2
	PCI#3A	/pci@eb, 2000/*@1
	PCI#3B	/pci@eb, 4000/*@2
SB#27	PCI#0A	/pci@ec, 2000/*@1
	PCI#0B	/pci@ec, 4000/*@2
	PCI#1A	/pci@ed, 2000/*@1
	PCI#1B	/pci@ed, 4000/*@2
	PCI#3A	/pci@ef, 2000/*@1
	PCI#3B	/pci@ef, 4000/*@2
SB#28	PCI#0A	/pci@f0, 2000/*@1
	PCI#0B	/pci@f0, 4000/*@2
	PCI#1A	/pci@f1, 2000/*@1
	PCI#1B	/pci@f1, 4000/*@2
	PCI#3A	/pci@f3, 2000/*@1
	PCI#3B	/pci@f3, 4000/*@2
SB#29	PCI#0A	/pci@f4, 2000/*@1
	PCI#0B	/pci@f4, 4000/*@2
	PCI#1A	/pci@f5, 2000/*@1
	PCI#1B	/pci@f5, 4000/*@2
	PCI#3A	/pci@f7, 2000/*@1
	PCI#3B	/pci@f7, 4000/*@2
SB#30	PCI#0A	/pci@f8, 2000/*@1
	PCI#0B	/pci@f8, 4000/*@2
	PCI#1A	/pci@f9, 2000/*@1
	PCI#1B	/pci@f9, 4000/*@2
	PCI#3A	/pci@fb, 2000/*@1
	PCI#3B	/pci@fb, 4000/*@2
SB#31	PCI#0A	/pci@fc, 2000/*@1
	PCI#0B	/pci@fc, 4000/*@2
	PCI#1A	/pci@fd, 2000/*@1
	PCI#1B	/pci@fd, 4000/*@2
	PCI#3A	/pci@ff, 2000/*@1
	PCI#3B	/pci@ff, 4000/*@2



● PRIMEPOWER 2500/HPC2500 (Physical Partitioning)

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#0)	PCI#0	/pci@80, 2000/*@1
	PCI#1	/pci@80, 4000/*@2
	PCI#2	/pci@80, 4000/*@3
	PCI#3	/pci@81, 2000/*@1
	PCI#4	/pci@81, 4000/*@2
	PCI#5	/pci@81, 4000/*@3
	PCI#6	/pci@81, 4000/*@4
	PCI#7	/pci@82, 2000/*@1
	PCI#8	/pci@82, 4000/*@2
	PCI#9	/pci@82, 4000/*@3
PCI-BOX#1 (connected to SB#0)	PCI#0	/pci@84, 2000/*@1
	PCI#1	/pci@84, 4000/*@2
	PCI#2	/pci@84, 4000/*@3
	PCI#3	/pci@85, 2000/*@1
	PCI#4	/pci@85, 4000/*@2
	PCI#5	/pci@85, 4000/*@3
	PCI#6	/pci@85, 4000/*@4
	PCI#7	/pci@86, 2000/*@1
	PCI#8	/pci@86, 4000/*@2
	PCI#9	/pci@86, 4000/*@3
PCI-BOX#0 (connected to SB#1)	PCI#0	/pci@88, 2000/*@1
	PCI#1	/pci@88, 4000/*@2
	PCI#2	/pci@88, 4000/*@3
	PCI#3	/pci@89, 2000/*@1
	PCI#4	/pci@89, 4000/*@2
	PCI#5	/pci@89, 4000/*@3
	PCI#6	/pci@89, 4000/*@4
	PCI#7	/pci@8a, 2000/*@1
	PCI#8	/pci@8a, 4000/*@2
	PCI#9	/pci@8a, 4000/*@3
PCI-BOX#1 (connected to SB#1)	PCI#0	/pci@8c, 2000/*@1
	PCI#1	/pci@8c, 4000/*@2
	PCI#2	/pci@8c, 4000/*@3
	PCI#3	/pci@8d, 2000/*@1
	PCI#4	/pci@8d, 4000/*@2
	PCI#5	/pci@8d, 4000/*@3
	PCI#6	/pci@8d, 4000/*@4
	PCI#7	/pci@8e, 2000/*@1
	PCI#8	/pci@8e, 4000/*@2
	PCI#9	/pci@8e, 4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#2)	PCI#0	/pci@90, 2000/*@1
	PCI#1	/pci@90, 4000/*@2
	PCI#2	/pci@90, 4000/*@3
	PCI#3	/pci@91, 2000/*@1
	PCI#4	/pci@91, 4000/*@2
	PCI#5	/pci@91, 4000/*@3
	PCI#6	/pci@91, 4000/*@4
	PCI#7	/pci@92, 2000/*@1
	PCI#8	/pci@92, 4000/*@2
	PCI#9	/pci@92, 4000/*@3
PCI-BOX#1 (connected to SB#2)	PCI#0	/pci@94, 2000/*@1
	PCI#1	/pci@94, 4000/*@2
	PCI#2	/pci@94, 4000/*@3
	PCI#3	/pci@95, 2000/*@1
	PCI#4	/pci@95, 4000/*@2
	PCI#5	/pci@95, 4000/*@3
	PCI#6	/pci@95, 4000/*@4
	PCI#7	/pci@96, 2000/*@1
	PCI#8	/pci@96, 4000/*@2
	PCI#9	/pci@96, 4000/*@3
PCI-BOX#0 (connected to SB#3)	PCI#0	/pci@98, 2000/*@1
	PCI#1	/pci@98, 4000/*@2
	PCI#2	/pci@98, 4000/*@3
	PCI#3	/pci@99, 2000/*@1
	PCI#4	/pci@99, 4000/*@2
	PCI#5	/pci@99, 4000/*@3
	PCI#6	/pci@99, 4000/*@4
	PCI#7	/pci@9a, 2000/*@1
	PCI#8	/pci@9a, 4000/*@2
	PCI#9	/pci@9a, 4000/*@3
PCI-BOX#1 (connected to SB#3)	PCI#0	/pci@9c, 2000/*@1
	PCI#1	/pci@9c, 4000/*@2
	PCI#2	/pci@9c, 4000/*@3
	PCI#3	/pci@9d, 2000/*@1
	PCI#4	/pci@9d, 4000/*@2
	PCI#5	/pci@9d, 4000/*@3
	PCI#6	/pci@9d, 4000/*@4
	PCI#7	/pci@9e, 2000/*@1
	PCI#8	/pci@9e, 4000/*@2
	PCI#9	/pci@9e, 4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#4)	PCI#0	/pci@a0,2000/*@1
	PCI#1	/pci@a0,4000/*@2
	PCI#2	/pci@a0,4000/*@3
	PCI#3	/pci@a1,2000/*@1
	PCI#4	/pci@a1,4000/*@2
	PCI#5	/pci@a1,4000/*@3
	PCI#6	/pci@a1,4000/*@4
	PCI#7	/pci@a2,2000/*@1
	PCI#8	/pci@a2,4000/*@2
	PCI#9	/pci@a2,4000/*@3
PCI-BOX#1 (connected to SB#4)	PCI#0	/pci@a4,2000/*@1
	PCI#1	/pci@a4,4000/*@2
	PCI#2	/pci@a4,4000/*@3
	PCI#3	/pci@a5,2000/*@1
	PCI#4	/pci@a5,4000/*@2
	PCI#5	/pci@a5,4000/*@3
	PCI#6	/pci@a5,4000/*@4
	PCI#7	/pci@a6,2000/*@1
	PCI#8	/pci@a6,4000/*@2
	PCI#9	/pci@a6,4000/*@3
PCI-BOX#0 (connected to SB#5)	PCI#0	/pci@a8,2000/*@1
	PCI#1	/pci@a8,4000/*@2
	PCI#2	/pci@a8,4000/*@3
	PCI#3	/pci@a9,2000/*@1
	PCI#4	/pci@a9,4000/*@2
	PCI#5	/pci@a9,4000/*@3
	PCI#6	/pci@a9,4000/*@4
	PCI#7	/pci@aa,2000/*@1
	PCI#8	/pci@aa,4000/*@2
	PCI#9	/pci@aa,4000/*@3
PCI-BOX#1 (connected to SB#5)	PCI#0	/pci@ac,2000/*@1
	PCI#1	/pci@ac,4000/*@2
	PCI#2	/pci@ac,4000/*@3
	PCI#3	/pci@ad,2000/*@1
	PCI#4	/pci@ad,4000/*@2
	PCI#5	/pci@ad,4000/*@3
	PCI#6	/pci@ad,4000/*@4
	PCI#7	/pci@ae,2000/*@1
	PCI#8	/pci@ae,4000/*@2
	PCI#9	/pci@ae,4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#6)	PCI#0	/pci@b0,2000/*@1
	PCI#1	/pci@b0,4000/*@2
	PCI#2	/pci@b0,4000/*@3
	PCI#3	/pci@b1,2000/*@1
	PCI#4	/pci@b1,4000/*@2
	PCI#5	/pci@b1,4000/*@3
	PCI#6	/pci@b1,4000/*@4
	PCI#7	/pci@b2,2000/*@1
	PCI#8	/pci@b2,4000/*@2
	PCI#9	/pci@b2,4000/*@3
PCI-BOX#1 (connected to SB#6)	PCI#0	/pci@b4,2000/*@1
	PCI#1	/pci@b4,4000/*@2
	PCI#2	/pci@b4,4000/*@3
	PCI#3	/pci@b5,2000/*@1
	PCI#4	/pci@b5,4000/*@2
	PCI#5	/pci@b5,4000/*@3
	PCI#6	/pci@b5,4000/*@4
	PCI#7	/pci@b6,2000/*@1
	PCI#8	/pci@b6,4000/*@2
	PCI#9	/pci@b6,4000/*@3
PCI-BOX#0 (connected to SB#7)	PCI#0	/pci@b8,2000/*@1
	PCI#1	/pci@b8,4000/*@2
	PCI#2	/pci@b8,4000/*@3
	PCI#3	/pci@b9,2000/*@1
	PCI#4	/pci@b9,4000/*@2
	PCI#5	/pci@b9,4000/*@3
	PCI#6	/pci@b9,4000/*@4
	PCI#7	/pci@ba,2000/*@1
	PCI#8	/pci@ba,4000/*@2
	PCI#9	/pci@ba,4000/*@3
PCI-BOX#1 (connected to SB#7)	PCI#0	/pci@bc,2000/*@1
	PCI#1	/pci@bc,4000/*@2
	PCI#2	/pci@bc,4000/*@3
	PCI#3	/pci@bd,2000/*@1
	PCI#4	/pci@bd,4000/*@2
	PCI#5	/pci@bd,4000/*@3
	PCI#6	/pci@bd,4000/*@4
	PCI#7	/pci@be,2000/*@1
	PCI#8	/pci@be,4000/*@2
	PCI#9	/pci@be,4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#8)	PCI#0	/pci@c0,2000/*@1
	PCI#1	/pci@c0,4000/*@2
	PCI#2	/pci@c0,4000/*@3
	PCI#3	/pci@c1,2000/*@1
	PCI#4	/pci@c1,4000/*@2
	PCI#5	/pci@c1,4000/*@3
	PCI#6	/pci@c1,4000/*@4
	PCI#7	/pci@c2,2000/*@1
	PCI#8	/pci@c2,4000/*@2
	PCI#9	/pci@c2,4000/*@3
PCI-BOX#1 (connected to SB#8)	PCI#0	/pci@c4,2000/*@1
	PCI#1	/pci@c4,4000/*@2
	PCI#2	/pci@c4,4000/*@3
	PCI#3	/pci@c5,2000/*@1
	PCI#4	/pci@c5,4000/*@2
	PCI#5	/pci@c5,4000/*@3
	PCI#6	/pci@c5,4000/*@4
	PCI#7	/pci@c6,2000/*@1
	PCI#8	/pci@c6,4000/*@2
	PCI#9	/pci@c6,4000/*@3
PCI-BOX#0 (connected to SB#9)	PCI#0	/pci@c8,2000/*@1
	PCI#1	/pci@c8,4000/*@2
	PCI#2	/pci@c8,4000/*@3
	PCI#3	/pci@c9,2000/*@1
	PCI#4	/pci@c9,4000/*@2
	PCI#5	/pci@c9,4000/*@3
	PCI#6	/pci@c9,4000/*@4
	PCI#7	/pci@ca,2000/*@1
	PCI#8	/pci@ca,4000/*@2
	PCI#9	/pci@ca,4000/*@3
PCI-BOX#1 (connected to SB#9)	PCI#0	/pci@cc,2000/*@1
	PCI#1	/pci@cc,4000/*@2
	PCI#2	/pci@cc,4000/*@3
	PCI#3	/pci@cd,2000/*@1
	PCI#4	/pci@cd,4000/*@2
	PCI#5	/pci@cd,4000/*@3
	PCI#6	/pci@cd,4000/*@4
	PCI#7	/pci@ce,2000/*@1
	PCI#8	/pci@ce,4000/*@2
	PCI#9	/pci@ce,4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#a)	PCI#0	/pci@d0,2000/*@1
	PCI#1	/pci@d0,4000/*@2
	PCI#2	/pci@d0,4000/*@3
	PCI#3	/pci@d1,2000/*@1
	PCI#4	/pci@d1,4000/*@2
	PCI#5	/pci@d1,4000/*@3
	PCI#6	/pci@d1,4000/*@4
	PCI#7	/pci@d2,2000/*@1
	PCI#8	/pci@d2,4000/*@2
	PCI#9	/pci@d2,4000/*@3
PCI-BOX#1 (connected to SB#a)	PCI#0	/pci@d4,2000/*@1
	PCI#1	/pci@d4,4000/*@2
	PCI#2	/pci@d4,4000/*@3
	PCI#3	/pci@d5,2000/*@1
	PCI#4	/pci@d5,4000/*@2
	PCI#5	/pci@d5,4000/*@3
	PCI#6	/pci@d5,4000/*@4
	PCI#7	/pci@d6,2000/*@1
	PCI#8	/pci@d6,4000/*@2
	PCI#9	/pci@d6,4000/*@3
PCI-BOX#0 (connected to SB#b)	PCI#0	/pci@d8,2000/*@1
	PCI#1	/pci@d8,4000/*@2
	PCI#2	/pci@d8,4000/*@3
	PCI#3	/pci@d9,2000/*@1
	PCI#4	/pci@d9,4000/*@2
	PCI#5	/pci@d9,4000/*@3
	PCI#6	/pci@d9,4000/*@4
	PCI#7	/pci@da,2000/*@1
	PCI#8	/pci@da,4000/*@2
	PCI#9	/pci@da,4000/*@3
PCI-BOX#1 (connected to SB#b)	PCI#0	/pci@dc,2000/*@1
	PCI#1	/pci@dc,4000/*@2
	PCI#2	/pci@dc,4000/*@3
	PCI#3	/pci@dd,2000/*@1
	PCI#4	/pci@dd,4000/*@2
	PCI#5	/pci@dd,4000/*@3
	PCI#6	/pci@dd,4000/*@4
	PCI#7	/pci@de,2000/*@1
	PCI#8	/pci@de,4000/*@2
	PCI#9	/pci@de,4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#c)	PCI#0	/pci@e0,2000/*@1
	PCI#1	/pci@e0,4000/*@2
	PCI#2	/pci@e0,4000/*@3
	PCI#3	/pci@e1,2000/*@1
	PCI#4	/pci@e1,4000/*@2
	PCI#5	/pci@e1,4000/*@3
	PCI#6	/pci@e1,4000/*@4
	PCI#7	/pci@e2,2000/*@1
	PCI#8	/pci@e2,4000/*@2
	PCI#9	/pci@e2,4000/*@3
PCI-BOX#1 (connected to SB#c)	PCI#0	/pci@e4,2000/*@1
	PCI#1	/pci@e4,4000/*@2
	PCI#2	/pci@e4,4000/*@3
	PCI#3	/pci@e5,2000/*@1
	PCI#4	/pci@e5,4000/*@2
	PCI#5	/pci@e5,4000/*@3
	PCI#6	/pci@e5,4000/*@4
	PCI#7	/pci@e6,2000/*@1
	PCI#8	/pci@e6,4000/*@2
	PCI#9	/pci@e6,4000/*@3
PCI-BOX#0 (connected to SB#d)	PCI#0	/pci@e8,2000/*@1
	PCI#1	/pci@e8,4000/*@2
	PCI#2	/pci@e8,4000/*@3
	PCI#3	/pci@e9,2000/*@1
	PCI#4	/pci@e9,4000/*@2
	PCI#5	/pci@e9,4000/*@3
	PCI#6	/pci@e9,4000/*@4
	PCI#7	/pci@ea,2000/*@1
	PCI#8	/pci@ea,4000/*@2
	PCI#9	/pci@ea,4000/*@3
PCI-BOX#1 (connected to SB#d)	PCI#0	/pci@ec,2000/*@1
	PCI#1	/pci@ec,4000/*@2
	PCI#2	/pci@ec,4000/*@3
	PCI#3	/pci@ed,2000/*@1
	PCI#4	/pci@ed,4000/*@2
	PCI#5	/pci@ed,4000/*@3
	PCI#6	/pci@ed,4000/*@4
	PCI#7	/pci@ee,2000/*@1
	PCI#8	/pci@ee,4000/*@2
	PCI#9	/pci@ee,4000/*@3

Board Number	Slot Number	Device Name
PCI-BOX#0 (connected to SB#e)	PCI#0	/pci@f0,2000/*@1
	PCI#1	/pci@f0,4000/*@2
	PCI#2	/pci@f0,4000/*@3
	PCI#3	/pci@f1,2000/*@1
	PCI#4	/pci@f1,4000/*@2
	PCI#5	/pci@f1,4000/*@3
	PCI#6	/pci@f1,4000/*@4
	PCI#7	/pci@f2,2000/*@1
	PCI#8	/pci@f2,4000/*@2
	PCI#9	/pci@f2,4000/*@3
PCI-BOX#1 (connected to SB#e)	PCI#0	/pci@f4,2000/*@1
	PCI#1	/pci@f4,4000/*@2
	PCI#2	/pci@f4,4000/*@3
	PCI#3	/pci@f5,2000/*@1
	PCI#4	/pci@f5,4000/*@2
	PCI#5	/pci@f5,4000/*@3
	PCI#6	/pci@f5,4000/*@4
	PCI#7	/pci@f6,2000/*@1
	PCI#8	/pci@f6,4000/*@2
	PCI#9	/pci@f6,4000/*@3
PCI-BOX#0 (connected to SB#f)	PCI#0	/pci@f8,2000/*@1
	PCI#1	/pci@f8,4000/*@2
	PCI#2	/pci@f8,4000/*@3
	PCI#3	/pci@f9,2000/*@1
	PCI#4	/pci@f9,4000/*@2
	PCI#5	/pci@f9,4000/*@3
	PCI#6	/pci@f9,4000/*@4
	PCI#7	/pci@fa,2000/*@1
	PCI#8	/pci@fa,4000/*@2
	PCI#9	/pci@fa,4000/*@3
PCI-BOX#1 (connected to SB#f)	PCI#0	/pci@fc,2000/*@1
	PCI#1	/pci@fc,4000/*@2
	PCI#2	/pci@fc,4000/*@3
	PCI#3	/pci@fd,2000/*@1
	PCI#4	/pci@fd,4000/*@2
	PCI#5	/pci@fd,4000/*@3
	PCI#6	/pci@fd,4000/*@4
	PCI#7	/pci@fe,2000/*@1
	PCI#8	/pci@fe,4000/*@2
	PCI#9	/pci@fe,4000/*@3



● PRIMEPOWER 2500 (Extended Partitioning)

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#0)	PCI#0	/pci@84,2000/*@1
	PCI#1	/pci@84,4000/*@2
	PCI#2	/pci@84,4000/*@3
	PCI#3	/pci@85,2000/*@1
	PCI#4	/pci@85,4000/*@2
	PCI#5	/pci@85,4000/*@3
	PCI#6	/pci@85,4000/*@4
	PCI#7	/pci@86,2000/*@1
	PCI#8	/pci@86,4000/*@2
	PCI#9	/pci@86,4000/*@3
PCI-BOX#0 (connected to SB#1)	PCI#0	/pci@8c,2000/*@1
	PCI#1	/pci@8c,4000/*@2
	PCI#2	/pci@8c,4000/*@3
	PCI#3	/pci@8d,2000/*@1
	PCI#4	/pci@8d,4000/*@2
	PCI#5	/pci@8d,4000/*@3
	PCI#6	/pci@8d,4000/*@4
	PCI#7	/pci@8e,2000/*@1
	PCI#8	/pci@8e,4000/*@2
	PCI#9	/pci@8e,4000/*@3
PCI-BOX#0 (connected to SB#2)	PCI#0	/pci@94,2000/*@1
	PCI#1	/pci@94,4000/*@2
	PCI#2	/pci@94,4000/*@3
	PCI#3	/pci@95,2000/*@1
	PCI#4	/pci@95,4000/*@2
	PCI#5	/pci@95,4000/*@3
	PCI#6	/pci@95,4000/*@4
	PCI#7	/pci@96,2000/*@1
	PCI#8	/pci@96,4000/*@2
	PCI#9	/pci@96,4000/*@3
PCI-BOX#0 (connected to SB#3)	PCI#0	/pci@9c,2000/*@1
	PCI#1	/pci@9c,4000/*@2
	PCI#2	/pci@9c,4000/*@3
	PCI#3	/pci@9d,2000/*@1
	PCI#4	/pci@9d,4000/*@2
	PCI#5	/pci@9d,4000/*@3
	PCI#6	/pci@9d,4000/*@4
	PCI#7	/pci@9e,2000/*@1
	PCI#8	/pci@9e,4000/*@2
	PCI#9	/pci@9e,4000/*@3

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#4)	PCI#0	/pci@a4, 2000/*@1
	PCI#1	/pci@a4, 4000/*@2
	PCI#2	/pci@a4, 4000/*@3
	PCI#3	/pci@a5, 2000/*@1
	PCI#4	/pci@a5, 4000/*@2
	PCI#5	/pci@a5, 4000/*@3
	PCI#6	/pci@a5, 4000/*@4
	PCI#7	/pci@a6, 2000/*@1
	PCI#8	/pci@a6, 4000/*@2
	PCI#9	/pci@a6, 4000/*@3
PCI-BOX#0 (connected to SB#5)	PCI#0	/pci@ac, 2000/*@1
	PCI#1	/pci@ac, 4000/*@2
	PCI#2	/pci@ac, 4000/*@3
	PCI#3	/pci@ad, 2000/*@1
	PCI#4	/pci@ad, 4000/*@2
	PCI#5	/pci@ad, 4000/*@3
	PCI#6	/pci@ad, 4000/*@4
	PCI#7	/pci@ae, 2000/*@1
	PCI#8	/pci@ae, 4000/*@2
	PCI#9	/pci@ae, 4000/*@3
PCI-BOX#0 (connected to SB#6)	PCI#0	/pci@b4, 2000/*@1
	PCI#1	/pci@b4, 4000/*@2
	PCI#2	/pci@b4, 4000/*@3
	PCI#3	/pci@b5, 2000/*@1
	PCI#4	/pci@b5, 4000/*@2
	PCI#5	/pci@b5, 4000/*@3
	PCI#6	/pci@b5, 4000/*@4
	PCI#7	/pci@b6, 2000/*@1
	PCI#8	/pci@b6, 4000/*@2
	PCI#9	/pci@b6, 4000/*@3
PCI-BOX#0 (connected to SB#7)	PCI#0	/pci@bc, 2000/*@1
	PCI#1	/pci@bc, 4000/*@2
	PCI#2	/pci@bc, 4000/*@3
	PCI#3	/pci@bd, 2000/*@1
	PCI#4	/pci@bd, 4000/*@2
	PCI#5	/pci@bd, 4000/*@3
	PCI#6	/pci@bd, 4000/*@4
	PCI#7	/pci@be, 2000/*@1
	PCI#8	/pci@be, 4000/*@2
	PCI#9	/pci@be, 4000/*@3

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#8)	PCI#0	/pci@c0,2000/*@1
	PCI#1	/pci@c0,4000/*@2
	PCI#2	/pci@c0,4000/*@3
	PCI#3	/pci@c1,2000/*@1
	PCI#4	/pci@c1,4000/*@2
	PCI#5	/pci@c1,4000/*@3
	PCI#6	/pci@c1,4000/*@4
	PCI#7	/pci@c2,2000/*@1
	PCI#8	/pci@c2,4000/*@2
	PCI#9	/pci@c2,4000/*@3
PCI-BOX#0 (connected to SB#9)	PCI#0	/pci@c8,2000/*@1
	PCI#1	/pci@c8,4000/*@2
	PCI#2	/pci@c8,4000/*@3
	PCI#3	/pci@c9,2000/*@1
	PCI#4	/pci@c9,4000/*@2
	PCI#5	/pci@c9,4000/*@3
	PCI#6	/pci@c9,4000/*@4
	PCI#7	/pci@ca,2000/*@1
	PCI#8	/pci@ca,4000/*@2
	PCI#9	/pci@ca,4000/*@3
PCI-BOX#0 (connected to SB#a)	PCI#0	/pci@d0,2000/*@1
	PCI#1	/pci@d0,4000/*@2
	PCI#2	/pci@d0,4000/*@3
	PCI#3	/pci@d1,2000/*@1
	PCI#4	/pci@d1,4000/*@2
	PCI#5	/pci@d1,4000/*@3
	PCI#6	/pci@d1,4000/*@4
	PCI#7	/pci@d2,2000/*@1
	PCI#8	/pci@d2,4000/*@2
	PCI#9	/pci@d2,4000/*@3
PCI-BOX#0 (connected to SB#b)	PCI#0	/pci@d8,2000/*@1
	PCI#1	/pci@d8,4000/*@2
	PCI#2	/pci@d8,4000/*@3
	PCI#3	/pci@d9,2000/*@1
	PCI#4	/pci@d9,4000/*@2
	PCI#5	/pci@d9,4000/*@3
	PCI#6	/pci@d9,4000/*@4
	PCI#7	/pci@da,2000/*@1
	PCI#8	/pci@da,4000/*@2
	PCI#9	/pci@da,4000/*@3

Board Number;	Slot Number	Device Name
PCI-BOX#0 (connected to SB#c)	PCI#0	/pci@e0, 2000/*@1
	PCI#1	/pci@e0, 4000/*@2
	PCI#2	/pci@e0, 4000/*@3
	PCI#3	/pci@e1, 2000/*@1
	PCI#4	/pci@e1, 4000/*@2
	PCI#5	/pci@e1, 4000/*@3
	PCI#6	/pci@e1, 4000/*@4
	PCI#7	/pci@e2, 2000/*@1
	PCI#8	/pci@e2, 4000/*@2
	PCI#9	/pci@e2, 4000/*@3
PCI-BOX#0 (connected to SB#d)	PCI#0	/pci@e8, 2000/*@1
	PCI#1	/pci@e8, 4000/*@2
	PCI#2	/pci@e8, 4000/*@3
	PCI#3	/pci@e9, 2000/*@1
	PCI#4	/pci@e9, 4000/*@2
	PCI#5	/pci@e9, 4000/*@3
	PCI#6	/pci@e9, 4000/*@4
	PCI#7	/pci@ea, 2000/*@1
	PCI#8	/pci@ea, 4000/*@2
	PCI#9	/pci@ea, 4000/*@3
PCI-BOX#0 (connected to SB#e)	PCI#0	/pci@f0, 2000/*@1
	PCI#1	/pci@f0, 4000/*@2
	PCI#2	/pci@f0, 4000/*@3
	PCI#3	/pci@f1, 2000/*@1
	PCI#4	/pci@f1, 4000/*@2
	PCI#5	/pci@f1, 4000/*@3
	PCI#6	/pci@f1, 4000/*@4
	PCI#7	/pci@f2, 2000/*@1
	PCI#8	/pci@f2, 4000/*@2
	PCI#9	/pci@f2, 4000/*@3
PCI-BOX#0 (connected to SB#f)	PCI#0	/pci@f8, 2000/*@1
	PCI#1	/pci@f8, 4000/*@2
	PCI#2	/pci@f8, 4000/*@3
	PCI#3	/pci@f9, 2000/*@1
	PCI#4	/pci@f9, 4000/*@2
	PCI#5	/pci@f9, 4000/*@3
	PCI#6	/pci@f9, 4000/*@4
	PCI#7	/pci@fa, 2000/*@1
	PCI#8	/pci@fa, 4000/*@2
	PCI#9	/pci@fa, 4000/*@3

● SPARC Enterprise M4000/M5000

Board Number	Slot Number	Device Name
Logical System Board #0	Basic PCI Slot	PCI#0 /pci@0, 600000/pci@0/pci@8/pci@0, 1/****@1
		PCI#1 /pci@0, 600000/pci@0/pci@9/****@0
IOBoat (X)	PCI#1	PCI#1-PCIX1 /pci@0, 600000/pci@0/pci@9/pci@0/pci@1/pci@0/****@4
		PCI#1-PCIX2 /pci@0, 600000/pci@0/pci@9/pci@0/pci@1/pci@0, 1/****@4
		PCI#1-PCIX5 /pci@0, 600000/pci@0/pci@9/pci@0/pci@8/pci@0/****@4
		PCI#1-PCIX6 /pci@0, 600000/pci@0/pci@9/pci@0/pci@8/pci@0, 1/****@4

Board Number	Slot Number	Device Name	
	PCI#1-PCIX3	/pci@0, 600000/pci@0/pci@9/pci@0/pci@9/pci@0/****@4	
		/pci@0, 600000/pci@0/pci@9/pci@0/pci@9/pci@0, 1/****@4	
	PCI#1 IOBoat (Ex)	PCI#1-PCIE1	/pci@0, 600000/pci@0/pci@9/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#1-PCIE2	/pci@0, 600000/pci@0/pci@9/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#1-PCIE3	/pci@0, 600000/pci@0/pci@9/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#1-PCIE4	/pci@0, 600000/pci@0/pci@9/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#1-PCIE5	/pci@0, 600000/pci@0/pci@9/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#1-PCIE6	/pci@0, 600000/pci@0/pci@9/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#2	/pci@1, 700000/****@0
	PCI#2 IOBoat (X)	PCI#2-PCIX1	/pci@1, 700000/pci@0/pci@1/pci@0/****@4
		PCI#2-PCIX2	/pci@1, 700000/pci@0/pci@1/pci@0, 1/****@4
		PCI#2-PCIX5	/pci@1, 700000/pci@0/pci@8/pci@0/****@4
		PCI#2-PCIX6	/pci@1, 700000/pci@0/pci@8/pci@0, 1/****@4
		PCI#2-PCIX3	/pci@1, 700000/pci@0/pci@9/pci@0/****@4
		PCI#2-PCIX4	/pci@1, 700000/pci@0/pci@9/pci@0, 1/****@4
	PCI#2 IOBoat (Ex)	PCI#2-PCIE1	/pci@1, 700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#2-PCIE2	/pci@1, 700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#2-PCIE3	/pci@1, 700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#2-PCIE4	/pci@1, 700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#2-PCIE5	/pci@1, 700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#2-PCIE6	/pci@1, 700000/pci@0/pci@9/pci@0/pci@9/****@0
Basic PCI Slot	PCI#3	/pci@2, 600000/****@0	
PCI#3 IOBoat (X)	PCI#3-PCIX1	/pci@2, 600000/pci@0/pci@1/pci@0/****@4	
	PCI#3-PCIX2	/pci@2, 600000/pci@0/pci@1/pci@0, 1/****@4	
	PCI#3-PCIX5	/pci@2, 600000/pci@0/pci@8/pci@0/****@4	
	PCI#3-PCIX6	/pci@2, 600000/pci@0/pci@8/pci@0, 1/****@4	
	PCI#3-PCIX3	/pci@2, 600000/pci@0/pci@9/pci@0/****@4	
	PCI#3-PCIX4	/pci@2, 600000/pci@0/pci@9/pci@0, 1/****@4	
PCI#3 IOBoat (Ex)	PCI#3-PCIE1	/pci@2, 600000/pci@0/pci@1/pci@0/pci@0/****@0	
	PCI#3-PCIE2	/pci@2, 600000/pci@0/pci@1/pci@0/pci@1/****@0	
	PCI#3-PCIE3	/pci@2, 600000/pci@0/pci@1/pci@0/pci@9/****@0	
	PCI#3-PCIE4	/pci@2, 600000/pci@0/pci@9/pci@0/pci@0/****@0	
	PCI#3-PCIE5	/pci@2, 600000/pci@0/pci@9/pci@0/pci@1/****@0	
	PCI#3-PCIE6	/pci@2, 600000/pci@0/pci@9/pci@0/pci@9/****@0	
Basic PCI Slot	PCI#4	/pci@3, 700000/****@0	
PCI#4 IOBoat (X)	PCI#4-PCIX1	/pci@3, 700000/pci@0/pci@1/pci@0/****@4	
	PCI#4-PCIX2	/pci@3, 700000/pci@0/pci@1/pci@0, 1/****@4	
	PCI#4-PCIX5	/pci@3, 700000/pci@0/pci@8/pci@0/****@4	
	PCI#4-PCIX6	/pci@3, 700000/pci@0/pci@8/pci@0, 1/****@4	
	PCI#4-PCIX3	/pci@3, 700000/pci@0/pci@9/pci@0/****@4	
	PCI#4-PCIX4	/pci@3, 700000/pci@0/pci@9/pci@0, 1/****@4	
PCI#4 IOBoat (Ex)	PCI#4-PCIE1	/pci@3, 700000/pci@0/pci@1/pci@0/pci@0/****@0	
	PCI#4-PCIE2	/pci@3, 700000/pci@0/pci@1/pci@0/pci@1/****@0	
	PCI#4-PCIE3	/pci@3, 700000/pci@0/pci@1/pci@0/pci@9/****@0	
	PCI#4-PCIE4	/pci@3, 700000/pci@0/pci@9/pci@0/pci@0/****@0	
	PCI#4-PCIE5	/pci@3, 700000/pci@0/pci@9/pci@0/pci@1/****@0	

Board Number		Slot Number	Device Name
		PCI#4-PCIE6	/pci@3,700000/pci@0/pci@9/pci@0/pci@9/****@0
Logical System Board #1	Basic PCI Slot	PCI#0	/pci@10,600000/pci@0/pci@8/pci@0,1/****@1
		PCI#1	/pci@10,600000/pci@0/pci@9/****@0
	PCI#1 IOBoat (X)	PCI#1-PCIX1	/pci@10,600000/pci@0/pci@9/pci@0/pci@1/pci@0/****@4
		PCI#1-PCIX2	/pci@10,600000/pci@0/pci@9/pci@0/pci@1/pci@0,1/****@4
		PCI#1-PCIX5	/pci@10,600000/pci@0/pci@9/pci@0/pci@8/pci@0/****@4
		PCI#1-PCIX6	/pci@10,600000/pci@0/pci@9/pci@0/pci@8/pci@0,1/****@4
		PCI#1-PCIX3	/pci@10,600000/pci@0/pci@9/pci@0/pci@9/pci@0/****@4
		PCI#1-PCIX4	/pci@10,600000/pci@0/pci@9/pci@0/pci@9/pci@0,1/****@4
	PCI#1 IOBoat (Ex)	PCI#1-PCIE1	/pci@10,600000/pci@0/pci@9/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#1-PCIE2	/pci@10,600000/pci@0/pci@9/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#1-PCIE3	/pci@10,600000/pci@0/pci@9/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#1-PCIE4	/pci@10,600000/pci@0/pci@9/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#1-PCIE5	/pci@10,600000/pci@0/pci@9/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#1-PCIE6	/pci@10,600000/pci@0/pci@9/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#2	/pci@11,700000/****@0
	PCI#2 IOBoat (X)	PCI#2-PCIX1	/pci@11,700000/pci@0/pci@1/pci@0/****@4
		PCI#2-PCIX2	/pci@11,700000/pci@0/pci@1/pci@0,1/****@4
		PCI#2-PCIX5	/pci@11,700000/pci@0/pci@8/pci@0/****@4
		PCI#2-PCIX6	/pci@11,700000/pci@0/pci@8/pci@0,1/****@4
		PCI#2-PCIX3	/pci@11,700000/pci@0/pci@9/pci@0/****@4
		PCI#2-PCIX4	/pci@11,700000/pci@0/pci@9/pci@0,1/****@4
	PCI#2 IOBoat (Ex)	PCI#2-PCIE1	/pci@11,700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#2-PCIE2	/pci@11,700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#2-PCIE3	/pci@11,700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#2-PCIE4	/pci@11,700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#2-PCIE5	/pci@11,700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#2-PCIE6	/pci@11,700000/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#3	/pci@12,600000/****@0
PCI#3 IOBoat (X)	PCI#3-PCIX1	/pci@12,600000/pci@0/pci@1/pci@0/****@4	
	PCI#3-PCIX2	/pci@12,600000/pci@0/pci@1/pci@0,1/****@4	
	PCI#3-PCIX5	/pci@12,600000/pci@0/pci@8/pci@0/****@4	
	PCI#3-PCIX6	/pci@12,600000/pci@0/pci@8/pci@0,1/****@4	
	PCI#3-PCIX3	/pci@12,600000/pci@0/pci@9/pci@0/****@4	
	PCI#3-PCIX4	/pci@12,600000/pci@0/pci@9/pci@0,1/****@4	
PCI#3 IOBoat (Ex)	PCI#3-PCIE1	/pci@12,600000/pci@0/pci@1/pci@0/pci@0/****@0	
	PCI#3-PCIE2	/pci@12,600000/pci@0/pci@1/pci@0/pci@1/****@0	
	PCI#3-PCIE3	/pci@12,600000/pci@0/pci@1/pci@0/pci@9/****@0	
	PCI#3-PCIE4	/pci@12,600000/pci@0/pci@9/pci@0/pci@0/****@0	
	PCI#3-PCIE5	/pci@12,600000/pci@0/pci@9/pci@0/pci@1/****@0	
	PCI#3-PCIE6	/pci@12,600000/pci@0/pci@9/pci@0/pci@9/****@0	
Basic PCI Slot	PCI#4	/pci@13,700000/****@0	
PCI#4 IOBoat (X)	PCI#4-PCIX1	/pci@13,700000/pci@0/pci@1/pci@0/****@4	
	PCI#4-PCIX2	/pci@13,700000/pci@0/pci@1/pci@0,1/****@4	
	PCI#4-PCIX5	/pci@13,700000/pci@0/pci@8/pci@0/****@4	
	PCI#4-PCIX6	/pci@13,700000/pci@0/pci@8/pci@0,1/****@4	

Board Number	Slot Number	Device Name
PCI#4 IOBoat (Ex)	PCI#4-PCIX3	/pci@13, 700000/pci@0/pci@9/pci@0/****@4
	PCI#4-PCIX4	/pci@13, 700000/pci@0/pci@9/pci@0, 1/****@4
	PCI#4-PCIE1	/pci@13, 700000/pci@0/pci@1/pci@0/pci@0/****@0
	PCI#4-PCIE2	/pci@13, 700000/pci@0/pci@1/pci@0/pci@1/****@0
	PCI#4-PCIE3	/pci@13, 700000/pci@0/pci@1/pci@0/pci@9/****@0
	PCI#4-PCIE4	/pci@13, 700000/pci@0/pci@9/pci@0/pci@0/****@0
	PCI#4-PCIE5	/pci@13, 700000/pci@0/pci@9/pci@0/pci@1/****@0
PCI#4-PCIE6	/pci@13, 700000/pci@0/pci@9/pci@0/pci@9/****@0	

● SPARC Enterprise M8000/M9000

Board Number	Slot Number	Device Name	
Logical System Board #0	Basic PCI Slot	PCI#0	/pci@0, 600000/****@0
	Basic PCI Slot	PCI#1	/pci@1, 700000/****@0
	PCI#1 IOBoat (X)	PCI#1-PCIX1	/pci@1, 700000/pci@0/pci@1/pci@0/****@4
		PCI#1-PCIX2	/pci@1, 700000/pci@0/pci@1/pci@0, 1/****@4
		PCI#1-PCIX5	/pci@1, 700000/pci@0/pci@8/pci@0/****@4
		PCI#1-PCIX6	/pci@1, 700000/pci@0/pci@8/pci@0, 1/****@4
		PCI#1-PCIX3	/pci@1, 700000/pci@0/pci@9/pci@0/****@4
		PCI#1-PCIX4	/pci@1, 700000/pci@0/pci@9/pci@0, 1/****@4
	PCI#1 IOBoat (Ex)	PCI#1-PCIE1	/pci@1, 700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#1-PCIE2	/pci@1, 700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#1-PCIE3	/pci@1, 700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#1-PCIE4	/pci@1, 700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#1-PCIE5	/pci@1, 700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#1-PCIE6	/pci@1, 700000/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#2	/pci@2, 600000/****@0
	Basic PCI Slot	PCI#3	/pci@3, 700000/****@0
	PCI#3 IOBoat (X)	PCI#3-PCIX1	/pci@3, 700000/pci@0/pci@1/pci@0/****@4
		PCI#3-PCIX2	/pci@3, 700000/pci@0/pci@1/pci@0, 1/****@4
		PCI#3-PCIX5	/pci@3, 700000/pci@0/pci@8/pci@0/****@4
		PCI#3-PCIX6	/pci@3, 700000/pci@0/pci@8/pci@0, 1/****@4
		PCI#3-PCIX3	/pci@3, 700000/pci@0/pci@9/pci@0/****@4
		PCI#3-PCIX4	/pci@3, 700000/pci@0/pci@9/pci@0, 1/****@4
	PCI#3 IOBoat (Ex)	PCI#3-PCIE1	/pci@3, 700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#3-PCIE2	/pci@3, 700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#3-PCIE3	/pci@3, 700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#3-PCIE4	/pci@3, 700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#3-PCIE5	/pci@3, 700000/pci@0/pci@9/pci@0/pci@1/****@0
PCI#3-PCIE6		/pci@3, 700000/pci@0/pci@9/pci@0/pci@9/****@0	
Basic PCI Slot	PCI#4	/pci@4, 600000/****@0	
Basic PCI Slot	PCI#5	/pci@5, 700000/****@0	
PCI#5 IOBoat (X)	PCI#5-PCIX1	/pci@5, 700000/pci@0/pci@1/pci@0/****@4	
	PCI#5-PCIX2	/pci@5, 700000/pci@0/pci@1/pci@0, 1/****@4	

Board Number	Slot Number	Device Name	
		PCI#5-PCIX5	/pci@5,700000/pci@0/pci@8/pci@0/****@4
		PCI#5-PCIX6	/pci@5,700000/pci@0/pci@8/pci@0,1/****@4
		PCI#5-PCIX3	/pci@5,700000/pci@0/pci@9/pci@0/****@4
		PCI#5-PCIX4	/pci@5,700000/pci@0/pci@9/pci@0,1/****@4
	PCI#5 IOBoat (Ex)	PCI#5-PCIE1	/pci@5,700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#5-PCIE2	/pci@5,700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#5-PCIE3	/pci@5,700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#5-PCIE4	/pci@5,700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#5-PCIE5	/pci@5,700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#5-PCIE6	/pci@5,700000/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#6	/pci@6,600000/****@0
	Basic PCI Slot	PCI#7	/pci@7,700000/****@0
	PCI#7 IOBoat (X)	PCI#7-PCIX1	/pci@7,700000/pci@0/pci@1/pci@0/****@4
		PCI#7-PCIX2	/pci@7,700000/pci@0/pci@1/pci@0,1/****@4
		PCI#7-PCIX5	/pci@7,700000/pci@0/pci@8/pci@0/****@4
		PCI#7-PCIX6	/pci@7,700000/pci@0/pci@8/pci@0,1/****@4
		PCI#7-PCIX3	/pci@7,700000/pci@0/pci@9/pci@0/****@4
		PCI#7-PCIX4	/pci@7,700000/pci@0/pci@9/pci@0,1/****@4
	PCI#7 IOBoat (Ex)	PCI#7-PCIE1	/pci@7,700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#7-PCIE2	/pci@7,700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#7-PCIE3	/pci@7,700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#7-PCIE4	/pci@7,700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#7-PCIE5	/pci@7,700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#7-PCIE6	/pci@7,700000/pci@0/pci@9/pci@0/pci@9/****@0
Logical System Board #1	Basic PCI Slot	PCI#0	/pci@10,600000/****@0
	Basic PCI Slot	PCI#1	/pci@11,700000/****@0
	PCI#1 IOBoat (X)	PCI#1-PCIX1	/pci@11,700000/pci@0/pci@1/pci@0/****@4
		PCI#1-PCIX2	/pci@11,700000/pci@0/pci@1/pci@0,1/****@4
		PCI#1-PCIX5	/pci@11,700000/pci@0/pci@8/pci@0/****@4
		PCI#1-PCIX6	/pci@11,700000/pci@0/pci@8/pci@0,1/****@4
		PCI#1-PCIX3	/pci@11,700000/pci@0/pci@9/pci@0/****@4
		PCI#1-PCIX4	/pci@11,700000/pci@0/pci@9/pci@0,1/****@4
	PCI#1 IOBoat (Ex)	PCI#1-PCIE1	/pci@11,700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#1-PCIE2	/pci@11,700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#1-PCIE3	/pci@11,700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#1-PCIE4	/pci@11,700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#1-PCIE5	/pci@11,700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#1-PCIE6	/pci@11,700000/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#2	/pci@12,600000/****@0
	Basic PCI Slot	PCI#3	/pci@13,700000/****@0
	PCI#3 IOBoat (X)	PCI#3-PCIX1	/pci@13,700000/pci@0/pci@1/pci@0/****@4
		PCI#3-PCIX2	/pci@13,700000/pci@0/pci@1/pci@0,1/****@4
		PCI#3-PCIX5	/pci@13,700000/pci@0/pci@8/pci@0/****@4



Board Number	Slot Number	Device Name	
	PCI#3	PCI#3-PCIX6	/pci@13,700000/pci@0/pci@8/pci@0,1/****@4
		PCI#3-PCIX3	/pci@13,700000/pci@0/pci@9/pci@0/****@4
		PCI#3-PCIX4	/pci@13,700000/pci@0/pci@9/pci@0,1/****@4
	IOBoat (Ex)	PCI#3-PCIE1	/pci@13,700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#3-PCIE2	/pci@13,700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#3-PCIE3	/pci@13,700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#3-PCIE4	/pci@13,700000/pci@0/pci@9/pci@0/pci@0/****@0
		PCI#3-PCIE5	/pci@13,700000/pci@0/pci@9/pci@0/pci@1/****@0
		PCI#3-PCIE6	/pci@13,700000/pci@0/pci@9/pci@0/pci@9/****@0
	Basic PCI Slot	PCI#4	/pci@14,600000/****@0
	Basic PCI Slot	PCI#5	/pci@15,700000/****@0
	PCI#5 IOBoat (X)	PCI#5-PCIX1	/pci@15,700000/pci@0/pci@1/pci@0/****@4
		PCI#5-PCIX2	/pci@15,700000/pci@0/pci@1/pci@0,1/****@4
		PCI#5-PCIX5	/pci@15,700000/pci@0/pci@8/pci@0/****@4
		PCI#5-PCIX6	/pci@15,700000/pci@0/pci@8/pci@0,1/****@4
		PCI#5-PCIX3	/pci@15,700000/pci@0/pci@9/pci@0/****@4
		PCI#5-PCIX4	/pci@15,700000/pci@0/pci@9/pci@0,1/****@4
	PCI#5 IOBoat (Ex)	PCI#5-PCIE1	/pci@15,700000/pci@0/pci@1/pci@0/pci@0/****@0
		PCI#5-PCIE2	/pci@15,700000/pci@0/pci@1/pci@0/pci@1/****@0
		PCI#5-PCIE3	/pci@15,700000/pci@0/pci@1/pci@0/pci@9/****@0
		PCI#5-PCIE4	/pci@15,700000/pci@0/pci@9/pci@0/pci@0/****@0
PCI#5-PCIE5		/pci@15,700000/pci@0/pci@9/pci@0/pci@1/****@0	
PCI#5-PCIE6		/pci@15,700000/pci@0/pci@9/pci@0/pci@9/****@0	
Basic PCI Slot	PCI#6	/pci@16,600000/****@0	
Basic PCI Slot	PCI#7	/pci@17,700000/****@0	
PCI#7 IOBoat (X)	PCI#7-PCIX1	/pci@17,700000/pci@0/pci@1/pci@0/****@4	
	PCI#7-PCIX2	/pci@17,700000/pci@0/pci@1/pci@0,1/****@4	
	PCI#7-PCIX5	/pci@17,700000/pci@0/pci@8/pci@0/****@4	
	PCI#7-PCIX6	/pci@17,700000/pci@0/pci@8/pci@0,1/****@4	
	PCI#7-PCIX3	/pci@17,700000/pci@0/pci@9/pci@0/****@4	
	PCI#7-PCIX4	/pci@17,700000/pci@0/pci@9/pci@0,1/****@4	
PCI#7 IOBoat (Ex)	PCI#7-PCIE1	/pci@17,700000/pci@0/pci@1/pci@0/pci@0/****@0	
	PCI#7-PCIE2	/pci@17,700000/pci@0/pci@1/pci@0/pci@1/****@0	
	PCI#7-PCIE3	/pci@17,700000/pci@0/pci@1/pci@0/pci@9/****@0	
	PCI#7-PCIE4	/pci@17,700000/pci@0/pci@9/pci@0/pci@0/****@0	
	PCI#7-PCIE5	/pci@17,700000/pci@0/pci@9/pci@0/pci@1/****@0	
	PCI#7-PCIE6	/pci@17,700000/pci@0/pci@9/pci@0/pci@9/****@0	

## Appendix E Available Switches

This appendix shows switches tested with FUJITSU PCI GigabitEthernet 3.0 (as of January 2007).

**Table E.1 With FUJITSU PCI GigabitEthernet 3.0 (PW008GE4/PW0G8GE1/SE0X7GD2X)**

Product Name	Connection	JumboFrame	Note
FUJITSU SH4000, SB7300, SR8800, SH4322G	OK	OK with SH4322G only	With SB7300, turn off the Autonegotiation function of the switch.
CISCO Systems Catalyst5500, 6500 series	OK	OK	-
Extreme Networks Summit series	OK	OK with i-series only	-
Extreme Networks BlackDiamond series	OK	OK with i-series only	-

**Table E.2 With FUJITSU PCI GigabitEthernet 3.0 (PW008GE5/PW0G8GE2/SE0X7GD1X/PW008QG1/SE0X7GQ1X and PRIMEPOWER250/450 secondary LAN port)**

● Gigabit Switches

Product Name	Connection	JumboFrame	Note
FUJITSU SH4000, SH4322G, SH4124T	OK	OK with SH4322G only	-
CISCO Systems Catalyst3550, 4000/6000 series	OK	OK with 6000 series only	-
Extreme Networks Summit series	OK	OK with i-series only	-

● 10/100Mbit Switches

Product Name	Connection	Note
FUJITSU SH1508, SH1508M, SH1516, SH1816, SH1816TF, SH1824, SH4124, SH4322G, SH5124T, LH8VC2 (Repeater)	OK	With SH4322G, 100M Half connection is not supported.

● Router

Product Name	Connection	Note
FUJITSU NetShelter	OK	In 10/100M fix mode, use cross cable.

**Table E.3 IEEE802.1q (TagVLAN) capable switches**

Product Name	Connection	Note
FUJITSU SH4124T, SH4322G	OK	-
3Com Superstack 3	OK	-
Hewlett Packard ProCurve 8000m	OK	-
Extreme Networks Summit 1i, 7i	OK	-
CISCO Systems Catalyst3550	OK	-

**Table E.4 IEEE802.3 LinkAggregation capable switches**

Product Name	Connection	Available Function Name
FUJITSU SH4322G	OK	LinkAggregation function
3Com Superstack 3	OK	LinkAggregation function
Hewlett Packard ProCurve 8000m	OK	Load Balancing function
Extreme Networks Summit 1i, 7i	OK	Load Sharing function
CISCO Systems Catalyst3550	OK	EtherChannel Function

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