

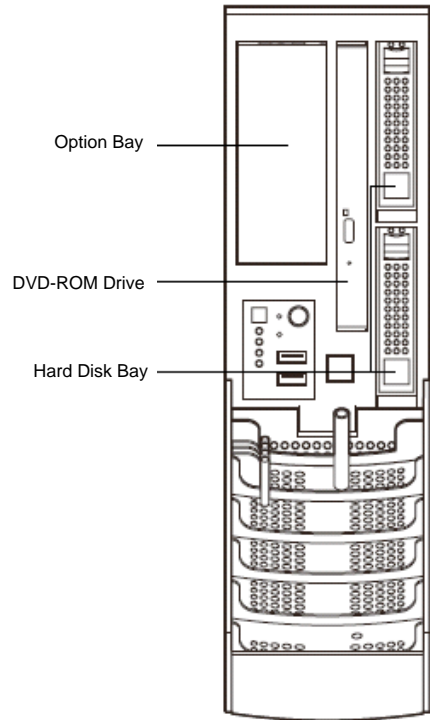
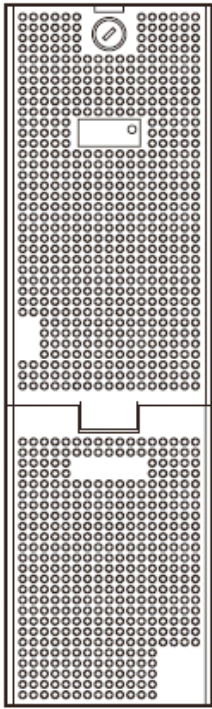
PRIMERGY[®]

System Configuration and Order-information Guide

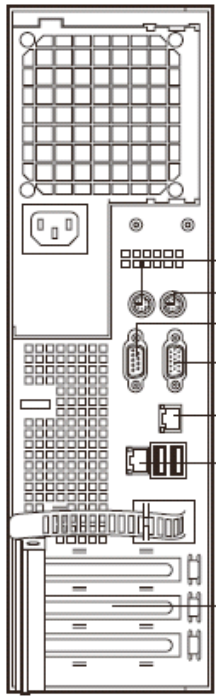
TX120







February 2009

Front View



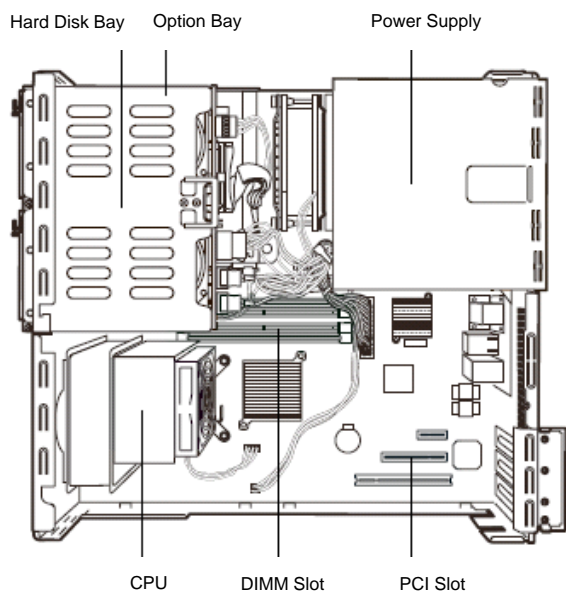
Back View



-  Mouse
-  Keyboard
-  Serial Port
-  Display
-  10/100BASE-TX Connector (for Remote Management Controller)
-  10/100/1000BASE-T Connector

PCI Slot

Inside View



front side ←

Instruction

This document contains basic product and configuration information that will enable you to configure your system.

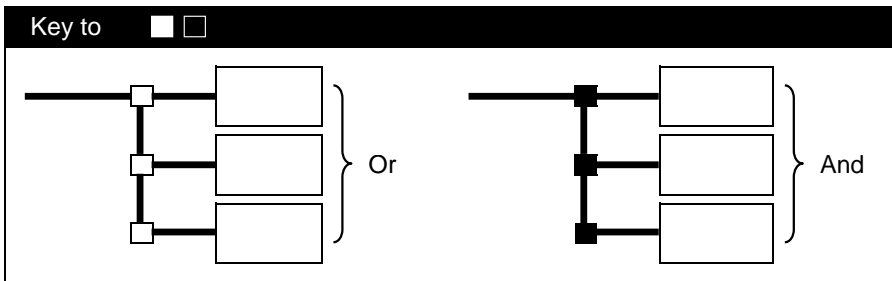
Only these tools will ensure a fast and proper configuration of your PRIMERGY server.

You can configure your individual PRIMERGY servers in order to meet your specific requirements.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take.

Go through the configurator by following the lines from the top to the bottom.

The color of the junction means as follows.



PRIMERGY TX120

Data Sheet

Type		Compact Size Server
Model		2.5inch SAS model
Base Unit		Celeron® 430 (1.80GHz)
		PGUT1213A
CPU	Frequencies	Intel® Xeon® 3070 (2.66GHz) *5 / 3040 (1.86GHz) *6 / Intel® Celeron® 430 (1.80GHz)
	Second-Level-Cache	4MB (Intel® Xeon® 3070 (2.66GHz)) / 2MB (Intel® Xeon® 3040 (1.86GHz)) / 512KB (Intel® Celeron® 430 (1.80GHz))
	Number of processors	1 (max. 1)
	Number of cores	2 per processor (Intel® Xeon® 3070 (2.66GHz) / 3040 (1.86GHz)) / 1 per processor (Intel® Celeron® 430 (1.80GHz))
Front-Side-Bus		1066MHz (Intel® Xeon® 3070 (2.66GHz) / 3040 (1.86GHz)) / 800MHz (Intel® Celeron® 430 (1.80GHz))
Chipset		Intel® 3000
TPM (Trusted Platform Module)		-
Memory	Standard	512MB (512MB ECC DDR2 SDRAM DIMM x 1)
	Maximum *1	8GB (2GB ECC DDR2 SDRAM DIMM x 4)
Graphics Controller		incl. Remote Management Controller, VRAM : 1.7MB
Resolution *2		640x480/800x600/1024x768/1280x1024 dot
Internal Bays	Number of bays	2 (hot plug)
	Available HDD *3	2.5inch, SAS, 10krpm, 73.4GB (PG-HDD71B) 2.5inch, SAS, 10krpm, 146.8GB (PG-HDD41B) 2.5inch, SAS, 15krpm, 73.4GB (PG-HDD75B)
HDD (SAS)		293.6GB (146.8GB x 2)
	Maximum *3	
Option Bays		2 (1 free bays)
DVD-ROM		Max 8 DVD-ROM / Max 24 CD-ROM (IDE)
PCI Slots	PCI Express (x4) [x8]	1 : LowProfile PCI Express Card
	PCI Express (x1) [x1]	1 : LowProfile PCI Express Card
	PCI (32bit/33MHz) [5.0V]	1 : LowProfile PCI Card
RAID		standard (onboard, with RAID1 function)
SAS Interface (onboard)		SAS x 2ports
FDD		- *7
Network Interface (onboard)		1 port (1000BASE-T/100BASE-TX/10BASE-T)
Interfaces		Display (Analog RGB), Serial Port (D-SUB 9pins), Keyboard (PS/2type Mini DIN 6pins) Mouse (PS/2type Mini DIN 6pins), USB x 5 (ver. 2.0) (Internal : x 1, External : x 4)
Server Management Software		ServerView (standard)
Remote Service function		standard (onboard, Remote Management Controller)
	connector	1 port (100BASE-TX/10BASE-T)
Power supply	Voltage	AC 100-127V (50/60Hz) / AC 200-240V (50/60Hz) x 1 (max. 1)
	Power consumption	175W / 630kJ/h (max.)
	Redundant power supply	-
Redundant Fan		-
Dimensions (mm)		99 (W) x 399 (D) x 340 (H)
Weight		10kg (max.)
Environmental Conditions		Temperature 10-35°C / Humidity 20-80% (non condensing)
OS Support *4		Windows Server® 2008 Standard (32-bit) *8 / Windows Server® 2008 Standard (64-bit) *8 Windows Server® 2003 R2, Standard Edition / Windows Server® 2003 R2, Standard Edition (SP2) Windows Server® 2003, Standard Edition (SP1/SP2) Windows Server® 2003 R2, Standard x64 Edition / Windows Server® 2003 R2, Standard x64 Edition (SP2) Windows Server® 2003, Standard x64 Edition / Windows Server® 2003, Standard x64 Edition (SP2) Red Hat Enterprise Linux ES (v.4 for x86) *9 / Red Hat Enterprise Linux 5 (for x86) *9 *10 Red Hat Enterprise Linux ES (v.4 for EM64T) *9 / Red Hat Enterprise Linux 5 (for Intel64) *9 *10
Attached tool (Standard)		ServerStart (Setup Support tool) *11

*1. Available memory capacity will be changed by the type of OS. Please find more details in Notes [Memory OS Compatibility List].

*2. Resolution is determined by functions of the display monitor and OS.

*3. HDD capacity is calculated according to the formula 1GB=1000³ byte.

*4. Drivers for Linux are not attached. Please download and use drivers of the following URL.

<http://www.fujitsu.com/global/services/computing/server/ia/driver/>

*5. CPU Conversion kit: Celeron 430(1.80GHz) -> Xeon 3070(2.66GHz) (PGBFU32W2) is available for upgrading to Intel® Xeon® 3070 (2.66GHz).

*6. CPU Conversion kit: Celeron 430(1.80GHz) -> Xeon 3040(1.86GHz) (PGBFU32Y) is available for upgrading to Intel® Xeon® 3040 (1.86GHz).

*7. One USB-FDD is required as a minimum in multiple servers.

It is necessary to procure USB-FDD separately.

*8. Regarding Windows Server® 2008, please refer to the following URL.

<http://www.fujitsu.com/global/services/computing/server/ia/driver/>

*9. Regarding supported kernel versions of Linux, please refer to the following list.

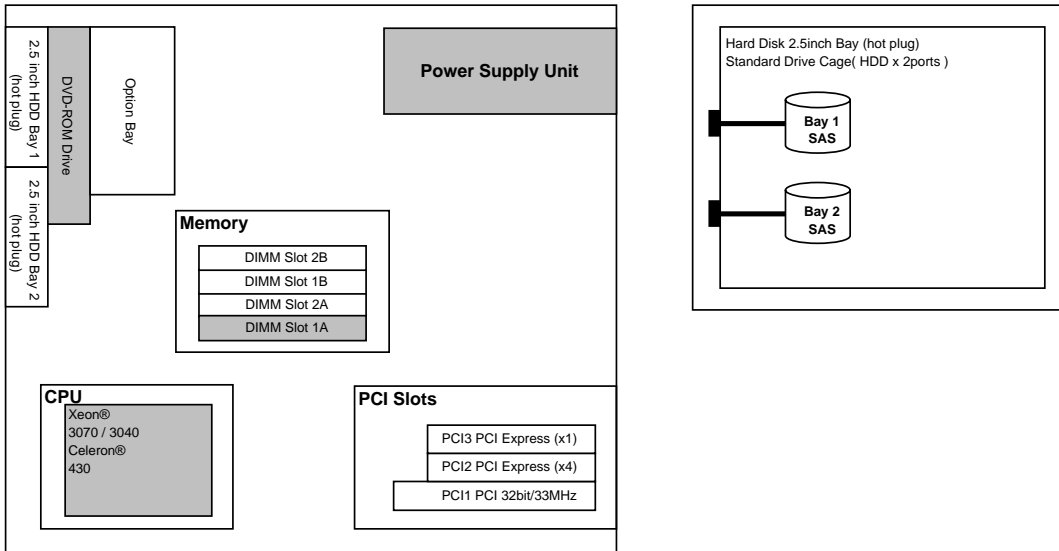
<http://www.fujitsu.com/downloads/PRMRGY/linux-os-kernel-compatibility-list.pdf>

*10. VM (Virtual Machine) function is not supported.

*11. ServerStart doesn't support Linux and Windows Server® 2008.

*. Noise level is 32dB.

Configuration Diagram



*Components installed as standard configuration marked in grey.

Mountable I/O Options

Mount Priority	Mountable Cards	Part No.	Bus	PCI Slot			Max No. of Mount	Remarks		
				1	2	3				
				PCI	PCI Express					
				32bit/33MHz	x4 lane	x1 lane				
Low Profile			5.0V	x8 socket	x1 socket					
High ↑ ↓ Low	SCSI Ctrl U160 lp	PG-1301L	PCI/64bit	[1]	-			-	1	LowProfile PCI Card, External SCSI Controller
	Eth. Ctrl 1000-BASE-T Cu lp	PG-1892L	PCI-X/64bit	[1]	-			-	1	LowProfile PCI Card
	Eth. Ctrl 1000-BASE-SX Fibre LC lp	PG-1882L	PCI-X/64bit	[1]	-	-	1	LowProfile PCI Card		
	Eth. Ctrl 1x1Gbit PCI 1000-BASE-T lp	PG-1853L	PCI/32bit	[1]	-	-	1	LowProfile PCI Card No AFT/ALB Support		
	Eth. Ctrl 1x1Gbit PCI-E 1000BASE-SX lp	PG-288L	PCI Express (x4)	-	[1]	-	1	LowProfile PCI Express Card		
	Eth. Ctrl 2x1Gbit PCI-E 1000-BASE-T lp	PG-2861L	PCI Express (x4)	-	[1]	-	1	LowProfile PCI Express Card		
	Eth. Ctrl 1x1Gbit PCI-E 1000-BASE-T lp	PG-289L	PCI Express (x1)	-	-	[1]	1	LowProfile PCI Express Card		

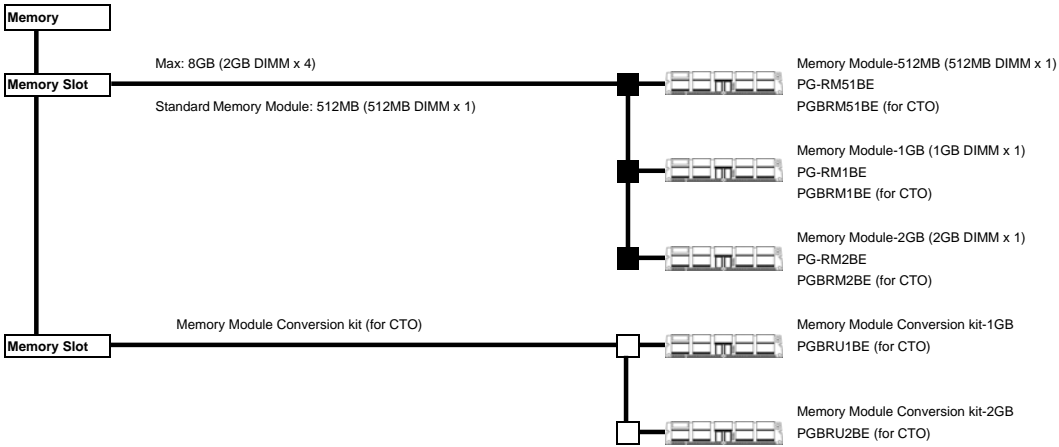
* [n] : Installation Priority
* - : cannot be installed

Connection Table

*CPU Conversion Kit (available only for a Configure to Order (CTO) option; no separate shipment is possible)

Type	Product ID	Description
CPU Conversion Kit: Celeron 430(1.80GHz) -> Xeon 3070(2.66GHz) (for CTO)	PGBFU32W2	Intel® Celeron® 430(1.80GHz/512KB) -> Intel® Xeon® 3070 (2.66GHz/4MB) Convert the CPU installed as standard in the base unit to the other. (Note: This option can be ordered only as coupled with the base unit. A separate shipment is not possible.)
CPU Conversion Kit: Celeron 430(1.80GHz) -> Xeon 3040(1.86GHz) (for CTO)	PGBFU32Y	Intel® Celeron® 430(1.80GHz/512KB) -> Intel® Xeon® 3040 (1.86GHz/2MB) Convert the CPU installed as standard in the base unit to the other. (Note: This option can be ordered only as coupled with the base unit. A separate shipment is not possible.)

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***. Notes on installing memory**

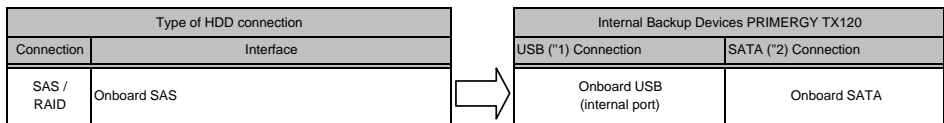
1. Memory is installed by one or more DIMMs.
2. The memory capacities of the slots should be in ascending order in the following sequence:
1A -> 1B -> 2A -> 2B
3. Available memory capacity depends on the type of OS and some memory area is used for PCI resource management.
The following table shows installed memory capacity and available memory capacity.

OS	Installed Memory Capacity	Available Memory Capacity
Windows Server® 2008 Standard (32-bit)	~3.5GB	Same as installed memory capacity
Windows Server® 2003 R2, Standard Edition (SP2) Windows Server® 2003, Standard Edition (SP2)		
Windows Server® 2008 Standard (64-bit) Windows Server® 2003 R2, Standard x64 Edition (SP2) Windows Server® 2003, Standard x64 Edition (SP2) Red Hat Enterprise Linux ES (v.4 for x86) Red Hat Enterprise Linux 5 (for x86) Red Hat Enterprise Linux ES (v.4 for EM64T) Red Hat Enterprise Linux 5 (for Intel64)	~8.0GB	Same as installed memory capacity

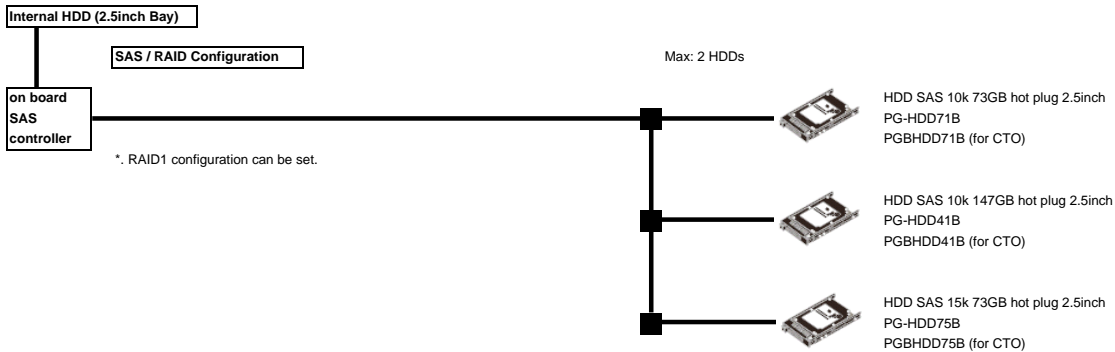
*1. If installed memory capacity is more than 3.5GB, it is necessary to set "PAE (Physical Address Extension)" of OS.
The following (1) and (2) are the ways to set "PAE" of OS, and Fujitsu recommends (1).

- (1) Set "PAE" of OS.
Regarding setting "PAE" of OS, please refer to website of Microsoft.
- (2) Set "DPE (Data Execution Prevention)" of CPU.
If "DPE" of CPU is set as "available" by executing the following procedure, "PAE" of OS is set automatically.
 - [1] Execute "BIOS setup utility".
 - [2] Select "Advanced" menu.
 - [3] Select "Advanced Processor" submenu.
 - [4] Set "NX Memory Protection" as "Enabled".

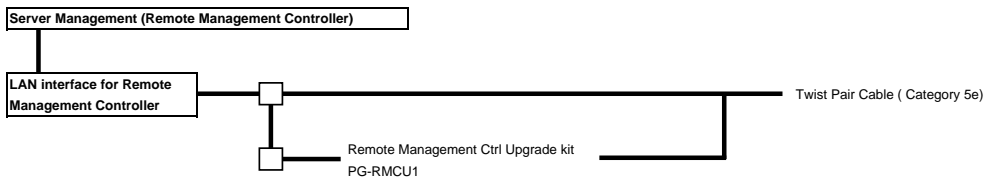
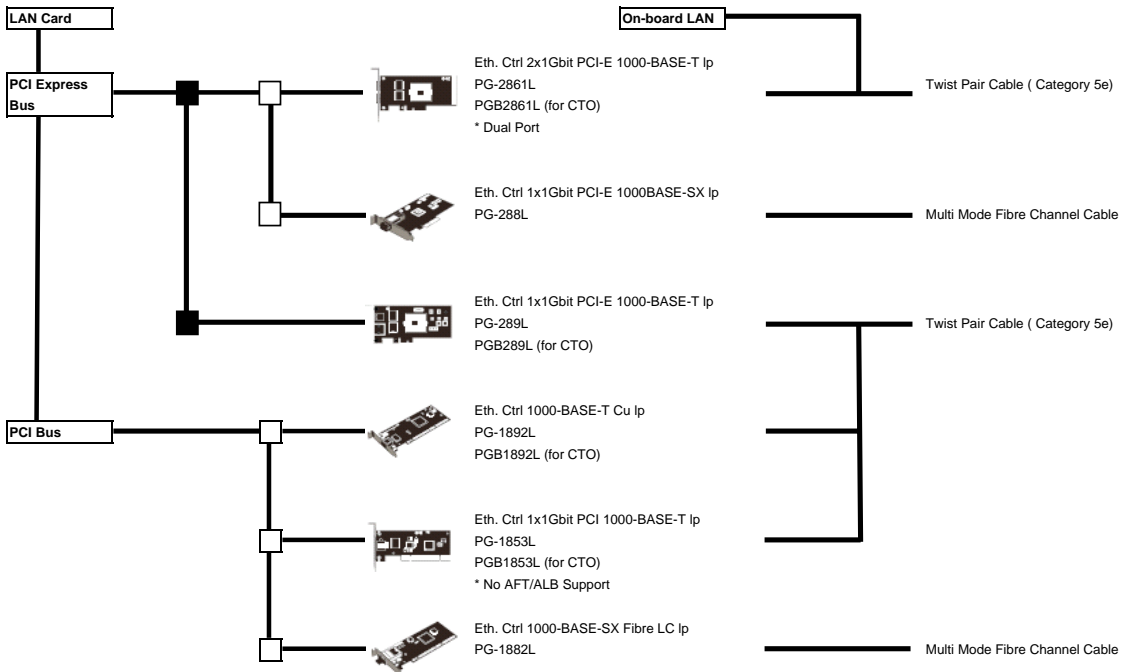
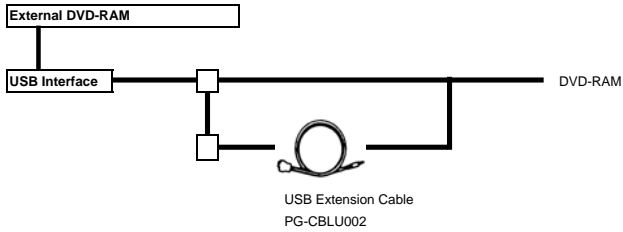
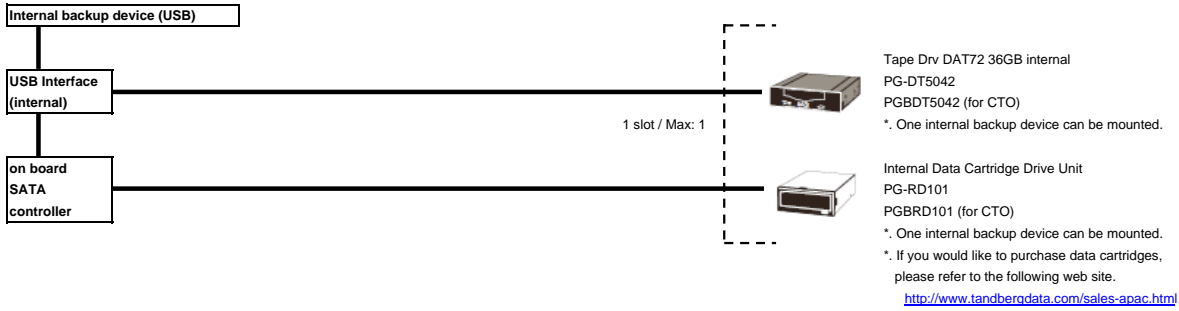
Connecting Internal HDD and Internal Backup Devices



(*1) USB Backup Devices: PG-DT5042
(*2) SATA Backup Devices: PG-RD101



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Specifications are subject to change without notice. For the latest detailed information, contact your local representative.

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