THE POSSIBILITIES ARE INFINITE FUJITSU

PRIMERGY®

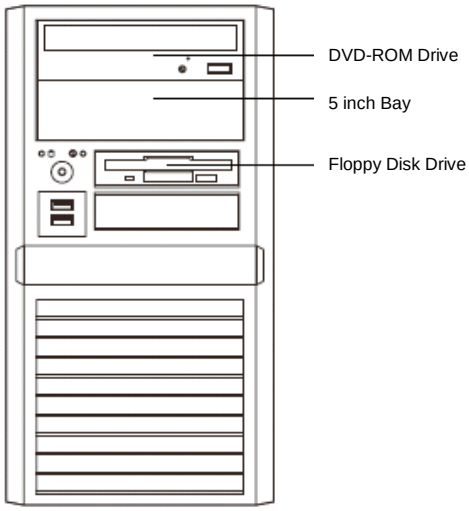
System Configuration and Order-information Guide

ECONEL 100 S2

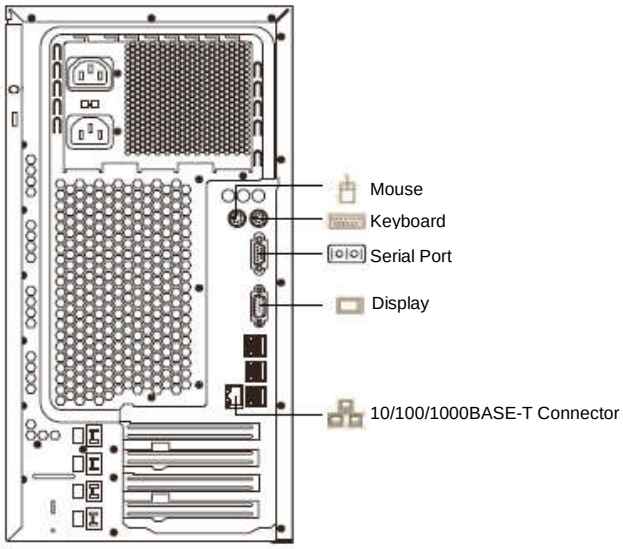
March 2009

PRIMERGY ECONEL 100 S2

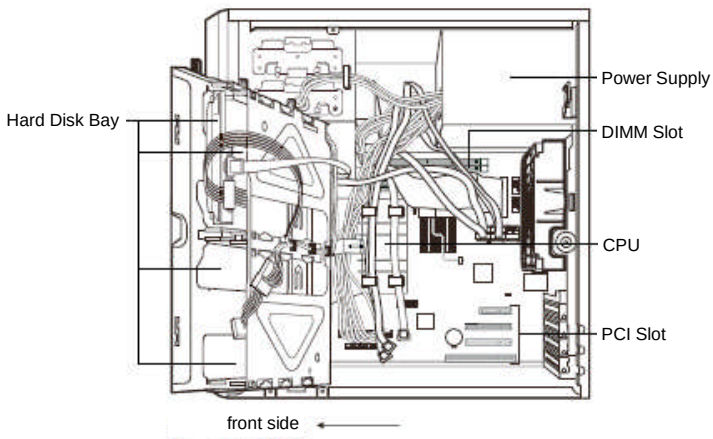
Front View



Back View



Inside View



PRIMERGY ECONEL 100 S2

Instruction

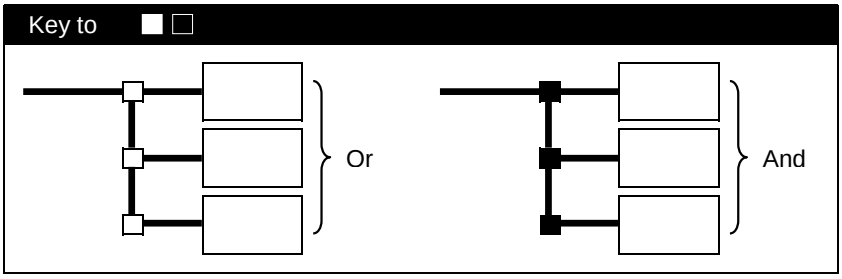
This document contains basic product and configuration information that will enable you to configure your system.

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

You can configure your individual PRIMERGY server 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 ECONEL 100 S2

Data Sheet

Type		Mono-Processor Tower Server
Model		3.5inch SATA model
Base Unit	Pentium® E2200(2.20GHz)	PGUE1026B
	Celeron® 430(1.80GHz)	PGUE1021B2
CPU	Frequencies	Intel® Xeon® E3120(3.16GHz) *5 / E3110(3GHz) *6 / Intel® Core™ 2 Duo E7300(2.66GHz) *7 / Intel® Pentium® E2200(2.20GHz) / Intel® Celeron® 430(1.80GHz)
	Second-Level-Cache	6MB (Intel® Xeon® E3120(3.16GHz) / E3110(3GHz)) / 3MB (Intel® Core™ 2 Duo E7300(2.66GHz)) / 1MB (Intel® Pentium® E2200(2.20GHz)) / 512KB (Intel® Celeron® 430(1.80GHz))
	Number of processors	1 (max. 1)
	Number of cores	2 per processor (Intel® Xeon® E3120(3.16GHz) / E3110(3GHz) / Intel® Core™ 2 Duo E7300(2.66GHz) / Intel® Pentium® E2200(2.20GHz)) / 1 per processor (Intel® Celeron® 430(1.80GHz))
Front-Side-Bus		1333MHz (Intel® Xeon® E3120(3.16GHz) / E3110(3GHz)) / 1066MHz (Intel® Core™ 2 Duo E7300(2.66GHz) / 800MHz (Intel® Pentium® E2200(2.20GHz) / Intel® Celeron® 430(1.80GHz))
Chipset		Intel® 3200
TPM (Trusted Platform Module)		standard (onboard) *8
Memory	Standard	1GB (1GB ECC DDR2 SDRAM DIMM x 1)
	Maximum *1	8GB (2GB ECC DDR2 SDRAM DIMM x 4)
Graphics Controller		ATI ES1000, VRAM : 32MB (PCI)
Resolution *2		640x480/800x600/1024x768/1280x1024 dot
Internal Bays	Number of bays	4
3.5 inch HDD (SATA)	Available HDD *3	3.5inch, SATA, 7.2krpm, 80.0GB (PG-HDE87A) 3.5inch, SATA, 7.2krpm, 160.0GB (PG-HDE67A) 3.5inch, SATA, 7.2krpm, 500.0GB (PG-HDE57A)
	Maximum *3	2.0TB (500.0GB x 4)
Internal Bays 5inch		2 (1 free bay)
DVD-ROM		Max 16 DVD-ROM / Max 40 CD-ROM (SATA)
PCI Slots	PCI Express (x8) [x8]	1
	PCI Express (x4) [x8]	1
	PCI Express (x1) [x8]	1
	PCI (32bit/33MHz) [3.3V]	1
RAID		Software RAID
SATA Interface (onboard)		SATA x 4ports
Internal FDD		3.5inch (1.44MB/720KB)
Network Interface (onboard)		1 port (1000BASE-T/100BASE-TX/10BASE-T)
Interfaces		Display (Analog RGB), Serial Port (D-SUB 9pins) Parallel Port (optional, D-SUB 25pins) (1 when Parallel Port (PG-PP08) is applied.) Keyboard (PS/2type Mini DIN 6pins), Mouse (PS/2type Mini DIN 6pins), USB x 9 (ver. 2.0) (Internal : x 1,External : x 8)
Server Management Software		ServerView (standard)
Power supply	Voltage	AC 100-127V (50/60Hz) / AC 200-240V (50/60Hz) x 1 (max. 1)
	Power consumption	178W /640.8kJ/h (max.)
	Redundant power supply	-
Redundant Fan		-
Dimensions (mm)		203 (W) x 386 (D) x 390 (H)
Weight		16.2kg (max.)
Environmental Conditions		Temperature10-35°C / Humidity 20-80% (non condensing)
OS Support *4		Windows Server® 2008 Standard (32-bit) / Windows Server® 2008 Standard (64-bit) Windows Server® 2003 R2, Standard Edition (SP2) / Windows Server® 2003, Standard Edition (SP2) Windows Server® 2003 R2, Standard x64 Edition (SP2) / Windows Server® 2003, Standard x64 Edition (SP2) Windows® Small Business Server 2003 R2 (SP2) / Windows® Small Business Server 2003 (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 formulas $1GB=1000^3$ byte and $1TB=1000^4$ 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: Pentium E2200(2.20GHz) -> Xeon E3120(3.16GHz) (PGBFU50L) is available for upgrading to Intel® Xeon® E3120(3.16GHz).

*6. CPU Conversion kit: Pentium E2200(2.20GHz) -> Xeon E3110(3GHz) (PGBFU50K) is available for upgrading to Intel® Xeon® E3110(3GHz).

*7. CPU Conversion kit: Pentium E2200(2.20GHz) -> Core 2 Duo E7300(2.66GHz) (PGBUFU50P) is available for upgrading to Intel® Core™ 2 Duo E7300(2.66GHz).

*8. TPM is available for BitLocker™ Drive Encryption of Windows Server® 2008.

*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

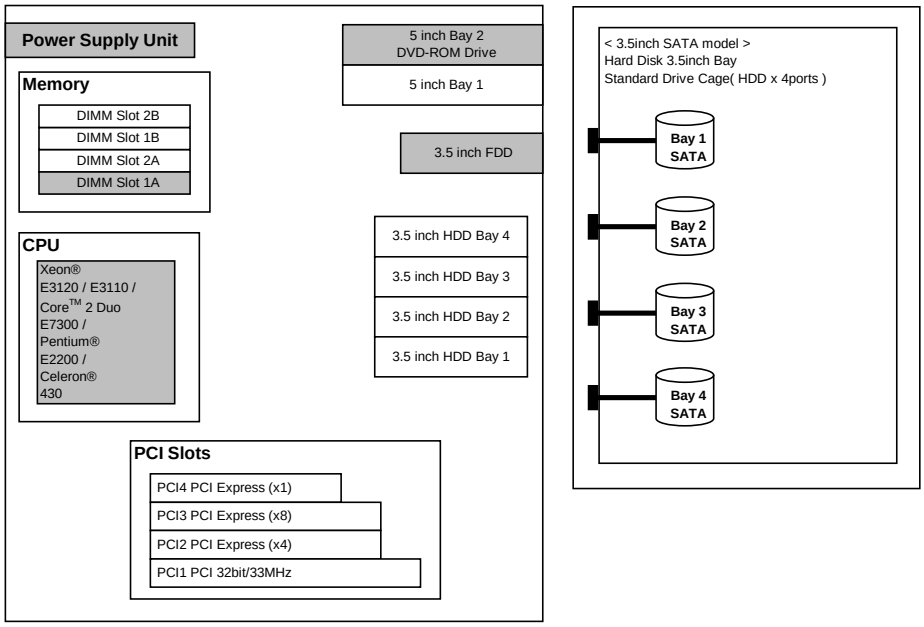
*10. VM (Virtual Machine) function is not supported.

*11. ServerStart doesn't support Linux.

*. Noise level is 21dB.

PRIMERGY ECONEL 100 S2

Configuration Diagram



*Components installed as standard configuration marked in grey.

Mountable I/O Options

[3.5inch SATA model]

Mount Priority	Mountable Cards		Bus	PCI Slot 1	PCI Slot 2	PCI Slot 3	PCI Slot 4	Max No.of Mount	Remarks
				PCI	PCI Express				
				32bit/ 33MHz	x4 lane	x8 lane	x1 lane		
				Full Height					
				3.3V	x8 socket				
High	SAS RAID Ctrl w/ Cable (8ports / 256MB / without BBU)	PG-248BC	PCI Express (x4)	-	-	[1]	-	1	Internal array
↕	Eth. Ctrl 1x1Gbit PCI 1000-BASE-T	PG-1853	PCI/32bit	[1]	-	-	-	1	No AFT/ALB Support
	Eth. Ctrl 1x1Gbit PCI-E 1000-BASE-T	PG-285	PCI Express (x1)	-	[1]	-	-	1	No AFT/ALB Support
Low	Parallel Port	PG-PP08	-	-	-	-	[1]	1	

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

Notes on SATA HDD

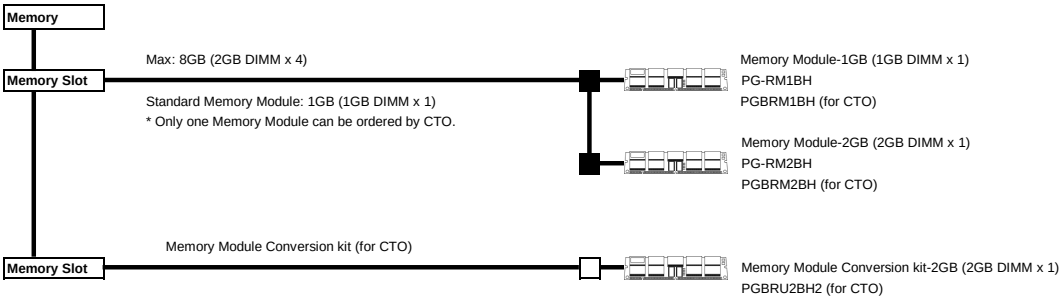
1. ECONEL 100 S2 (3.5inch SATA model) can be used on a small scale without frequent data access about eight hours a day, for five years.
2. If you would like to use server 24 hours a day, every day, or for database with frequent data access, or for mission-critical tasks which require high reliability, please purchase another SAS model.
3. Please backup data on a regular basis to prevent loss of data.
4. Dump function of Linux is not available for ECONEL 100 S2 (3.5inch SATA model). If you would like to use dump function of Linux, please purchase another SAS model.

Connection Table

*CPU Conversion kit (available only as a Configure To Order (CTO) option; no separate shipment is possible)

Type	Product ID	Remarks
CPU Conversion kit: Pentium E2200(2.20GHz) -> Xeon E3120(3.16GHz) (for CTO)	PGBFU50L	Intel® Pentium® E2200(2.20GHz/1MB) -> Intel® Xeon® E3120(3.16GHz/6MB) 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: Pentium E2200(2.20GHz) -> Xeon E3110(3GHz) (for CTO)	PGBFU50K	Intel® Pentium® E2200(2.20GHz/1MB) -> Intel® Xeon® E3110(3GHz/6MB) 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: Pentium E2200(2.20GHz) -> Core 2 Duo E7300(2.66GHz) (for CTO)	PGBUFU50P	Intel® Pentium® E2200(2.20GHz/1MB) -> Intel® Core™ 2 Duo E7300(2.66GHz/3MB) 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.)

PRIMERGY ECONEL 100 S2



*. 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) Windows Server® 2003 R2, Standard Edition (SP2) Windows Server® 2003, Standard Edition (SP2) Windows® Small Business Server 2003 R2 (SP2) Windows® Small Business Server 2003 (SP2)	~2.0GB	Same as installed memory capacity
	2.0GB~4.0GB	2.0GB *1
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 2.0GB, 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".

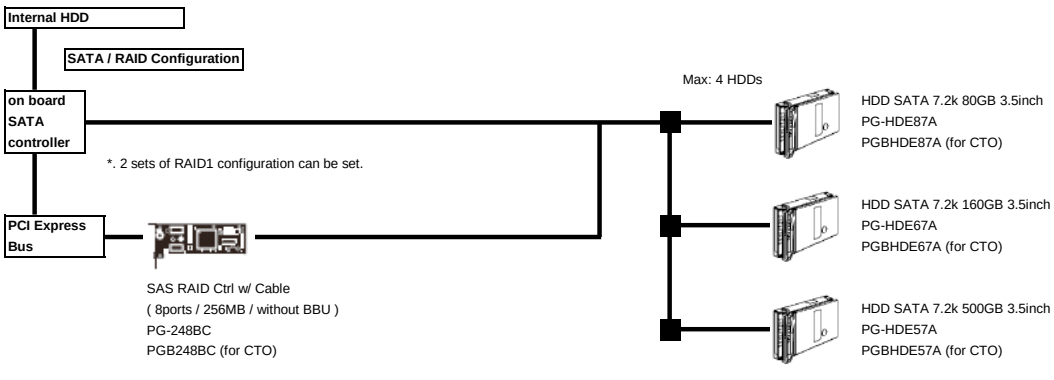
Connecting Internal HDD and Internal Backup Devices

If you would like to order internal HDD and internal backup devices, please order optional cards/cables according to the following table.

Type of HDD connection		Internal Backup Devices PRIMERGY ECONEL 100 S2
Connection	Interface	USB (*1) Connection
SATA / RAID	Onboard SATA Controller	USB Cable (PG-CBLU005/PGBCBLU005)
RAID	SAS RAID Controller	

(*1) USB Backup Devices: PG-DT5043/PG-RD1021

[3.5inch SATA model]



*. RAID 0/1/1+0/5/6 configuration can be set.

PRIMERGY ECONEL 100 S2

Internal backup device (USB)

USB Interface (internal)

USB Cable
PG-CBLU005
PGBCBLU005 (for CTO)

Tape Drv DAT72 36GB internal
PG-DT5043
PGBDT5043 (for CTO)
*. One internal backup device can be mounted.

Internal Data Cartridge Drive Unit
PG-RD1021
PGBRD1021 (for CTO)
*. One internal backup device can be mounted.
*. If you would like to purchase data cartridges, please refer to the following web site.
http://www.tandbergdata.com/sales-apac.html

External DVD-RAM/DVD-ROM/CD-ROM

USB Interface

DVD-RAM / DVD-ROM / CD-ROM

USB Extension Cable
PG-CBLU002

LAN Card

On-board LAN

PCI Express Bus

Eth. Ctrl 1x1Gbit PCI-E 1000-BASE-T
PG-285
PGB285 (for CTO)
* No AFT/ALB Support
*. Supported versions of Linux are 5.2 or later and 4.7 or later.

Twist Pair Cable (Category 5e)

PCI Bus

Eth. Ctrl 1x1Gbit PCI 1000-BASE-T
PG-1853
PGB1853 (for CTO)
* No AFT/ALB Support

Twist Pair Cable (Category 5e)

Parallel Port Option

PCI Slot

Parallel Port
PG-PP08
*. This option occupies one PCI slot.

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

All brand names and product names are trademarks and registered trademarks of their respective holders.

©2008 Fujitsu Limited. All rights reserved. Printed in Japan.

FUJITSU LIMITED