PRIMERGY 170

Flexible Mono-Processor Power

Hardware Product | Server

The Mono-Processor Workgroup Server

The reliable platform for your team

The PRIMERGY 170 is unique with its flexibility for usage as a tower or for integrated in 19" rack cabinets, with the price sensitive IDE or efficient SCSI or reliable hot-plug RAID hard-disks variants. Thanks to its "easy doing " concept, the PRIMERGY 170 offers an excellent entry platform into the world of Fujitsu Siemens PRIMERGY servers.

All of which opens up new implementation options making the system equally suited for both file server services in addition to application and print server operations.

Hardware Description

The Intel Pentium® III processor provides a high CPU and I/O power combined with the new Accelerated Hub Architecture. The Intel Pentium® III processor with 100 MHz front-side bus provides sufficient performance even for the most power hungry applications. The PRIMERGY 170 servers only use Intel Pentium® III processors with 256 / 512 Kbyte ECC-protected second-level cache. The main memory can be expanded up to 768 Mbyte SDRAM using 3 slots on the motherboard. The entire memory is ECC-protected (Error Correction Code). When accessing memory data, 1 bit errors are detected in the main memory and automatically corrected.

The Intel 10/100+ network card is already integrated onboard in the PRIMERGY 170. The LAN card is compatible with Magic Packet Support which is particularly significant in terms of the wake-on-LAN function (switch on via the network).

The PRIMERGY 170 can be flexibly expanded to meet any requirements. To this end, four slots for PCI 32-bit and one for ISA expansion modules are included. In addition, a so-called shared slot can either be used for an ISA or PCI module. The AGP slot is occupied with a graphics card.

The PRIMERGY 170 can be used both as a tower or 19 inch rack variant (5 HE). Floor standing and rack installation kits are also available providing easy, rapid conversion in both directions at a later date.

There are three bays for externally accessible drives. One externally accessible bay is occupied as standard by the CD-ROM drive, a second by the floppy disk drive.

Numerous bays are available for mass storage devices including two bays (1-inch high) for IDE hard disks or three bays (1.6-inch high) for standard SCSI or hot-plug RAID. Even the basic variant is able to store large volumes of data with up to 2 x 8.4 Gbyte IDE hard disks. Both SCSI power versions are available with up to three standard SCSI hard disks or in hot-plug frames with RAID controller, and increase data capacities up to 54 Gbyte (3 x 18 Gbyte).

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Special attention has been paid to thermal management. As such, the system fans and power supply fans provide temperature-dependent control. To this end a configurable fault alarm has already been implemented in the BIOS. A two-stage preventing program for fan problems considerably increases the working life of the system.

Security features

System access is controlled via **password protection** in the BIOS for system start and setup. Inadvertent modifications to the system setup can be prevented. The combined **lock-sliding panel** mechanism patented by Fujitsu Siemens (only with floorstanding variant) provides additional mechanical hardware protection. The On/Off switch can be disabled thereby preventing the system from being inadvertently shut down. An integral sensor detects when the PRIMERGY server is opened and notifies the operator via ServerView. An optional integral **chipcard reader** provides the basis for additional, innovative security functions. The reader can be integrated into the system unit or keyboard.

Servermanagement

The server management system for monitoring server operation is subdivided into the **PDA** technology (Pre-failure Detection and Analyzing) integrated on the system board, the **ASR&R** (Automatic Server Reconfiguration and Restart) Component and the operating system-specific software ServerView. ASR&R reconfigures faulty system components in an automatic restart of the system. Pre-failure Detection and Analyzing technology warns the system administrator of impending system faults or problems so that preventive action can be taken.

Additional functions are possible in conjunction with the **ServerView** software:

- Monitoring of the load on the PCI bus
- End-of-life monitoring with early warning of fan failure
- Statistics for service engineers (operating hours counter, power on/off cycles counter)
- Watchdog timer for monitoring the operating system and the application
- Detailed status and fault reports for bus systems, processors and main memory

ServerView can be integrated into standard enterprise management systems such as CA Unicenter TNG, Tivoli TME10, IBM NetView and the HP OpenView Network Node Manager via optionally available integration modules.

The **ServerStart** software supplied as standard allows quick, customized and secure configuration of the PRIMERGY server.

Software Support

On the PRIMERGY 170 running a choice of different standard server operating systems as MS Windows NT; Novell NetWare and IntranetWare; SCO UnixWare and OpenServer; IBM OS/2; SUN Solaris or Linux.

In addition we offer Microsoft's BackOffice components and the backup software ARCserv for Windows NT and NetWare.

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Upgrades, options

Main memory modules:
- 64, 128, 256 Mbyte SDRAM

Hard disk drives:
- IDE
  - 4,3 and 8,4 (max. 2 per system)
- Standard SCSI
  - 9 and 18 Gbyte
  - Max. 3 per System
- Hot-plug SCSI (RAID)
  - 9 and 18 Gbyte
  - Max. 3 per system

Backup drives:
- DAT DDS3
  - 12 Gbyte
  - 1 per system
- SLR50
  - 25 Gbyte
  - 1 per system

Storage subsystems:
- PRIMERGY S40
  - Connected to SCSI
  - 1 up to 3 internal SCSI channels
  - Max. 12 hard disks 9, 18 or 36 Gbyte
  - Up to 2 backup drives

Mass Storage controllers:
- SCSI controller, 1 channel
  - U2W SCSI
  - Max. 2 per system
- RAID controller, 1 channel
  - U2W SCSI
  - Battery backup unit (BBU)
  - 4 or 16 Mbyte Cache
  - Max. 1 per system

LAN controllers:
- Various Fast Ethernet Adapters
  - Partially with WOL (wake on LAN)
  - Max. 3 per system
- Token Ring Adapter
  - Partially with WOL (wake on LAN)
  - Max. 2 per system

WAN controllers:
- ISDN Adapter
  - S0 activ 2B+D
  - Max. 2 per system

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Technical Data PRIMERGY 170

Type	Mono Processor Workgroup Server
System board	
Processor	Intel Pentium III 600 - 700
Data width	64 bit internal and external
Clock speed (MHz)	600/100, 650/100, 700/100
cache bus / host bus	
First-Level-Cache integrated	32 Kbyte (2 x 16 Kbyte)
Second-Level-Cache	256 Kbyte
RAM	64 - 768 Mbyte SDRAM with ECC
Bus system	PCI; ISA
Flash-EPROM	BIOS-update from floppy disk or via LAN
Interfaces	
1 x RS-232-C (serial, 9-pin)	
1 x Centronics (parallel, 25-pin, EPP/ECP compatible)	
2 x PS/2 (keyboard and mouse), 2 x USB (1 x external),	
1 x LAN (RJ45)	
Drive controller onboard for	
Floppy disk drive	1,44 Mbyte
IDE hard disk	connected to IDE ATA 66
Graphic processor	
Matrox G100 with 4 Mbyte video RAM in the AGP Slot	
Network card onboard	Intel 10/100+
Floppy disk drive	3,5 inch, 1,44 Mbyte
CD-ROM drive	5,25 inch, 40-speed
Hard disk drives	
Net capacity	4 / 8 GByte (IDE) 9 / 18 GByte (U2W-SCSI)
Access time	< 10 ms
Hard disk capacity, internal	max. 54 Gbyte SCSI
Slots	4 x PCI, 1 x ISA, 1 x PCI/ISA 1 x AGP
Bays	
for HD drives	2 x 3,5 inch (1 inch high) for IDE hard disk drives
or	3 x 3,5 inch (1,6 inch high) for standard SCSI or hot-plug SCSI (in slide-in chassis)
for external drives	2 x 5,25 inch (1,6 inch high), one of which is occupied by a CD-ROM drive 1 x 3,5 inch (1 inch high) occupied by a floppy disk drive

Electrical values

Power supply	200 W (output power) 400 VA (apparent power)
Rated AC voltage	100-125 / 200-240 V
Frequency	50-60 Hz
Additional mechanical On/Off switch	

Temperature/Noise/Dimension/Weight

Ambient temperature	15°C - 35°C (to IEC 721)
Sound pressure level	< 42 dB(A) (to ISO 9296)
pegel LpA	in standard configuration
Dimension (H x W x D)	428 x 204 x 460 mm
Rack mount	5 height units
Weight	14-28 kg (dependent on configuration)

Standards

Product safety	EN 60950/IEC950 L 1950, CSA 22.2 No. 950
Electro magnetic compatibility	EN 55 022/B and EN 50 082-1, FCC class A
CE certification	to EU Directives: 89/336/EWG (EMV) and 73/23/EWG (Product safety)

Approvals

There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons (e.g. for Canada and USA, East European countries, Norway), can be applied for on request.
NEMKO for Norway

Operating system/Software

Orderable with PRIMERGY server	MS Windows NT Workstation/Server 4.0; MS Windows NT Server 4.0 Terminal Server Edition; Novell NetWare 4.x, 5.x and IntranetWare; SCO UnixWare 7.0.x and OpenServer; IBM OS/2; Sun Solaris 7; Linux (SuSE + Red Hat > 6.0)
Standard	ServerStart and ServerView

References: (HCL = Hardware Compatibility List)

Microsoft software products	HC-test and HCL entry
Novell	Certified for server
SCO UnixWare 7	Entry in SCO-HCL
SCO OpenServer 5.x	Entry in SCO-HCL

Company stamp

Order No.