

## PRIMERGY RX300 Dual-Processor Rack Server (2 U)



### Highly expandable at minimum space

The PRIMERGY RX300 rack server is a universal and powerful platform for a wide range of application areas in data centers and server farm concepts.

- Superb power reserves through newest Intel® Xeon™ processors with up to 3.20 GHz, 512 KB SLC, 1 MB TLC and 533 MHz FSB
- High degree of availability for memory protection mechanisms at up to 12 Gbyte 2-way interleaved DDR SDRAM memory with Chipkill™ and hot-spare memory option as well as redundant fans and power supply as an option

### Application areas

The PRIMERGY RX300 has been designed for multi-server configurations (clusters), front-end solutions, e-commerce applications and ERP solutions. The PRIMERGY RX300 is outstanding for applications and fields of use that demand maximum scalability, performance and availability in a space-saving rack cabinet.

The PRIMERGY RX300 rack server not only offers many high availability functions, but also, for a rack server, very great expandability with up to 6 hard disks and takes up just 2 height units (U) in a 19-inch rack.

### High availability

Apart from the standard 2-channel Ultra320 controller with RAID 0, 1 functionality and RAID 5 expansion option, hot-plug PCI-X slots and the memory protection mechanisms there are quite a few high availability options such as hot-spare memory, redundant hot-plug power supply modules and fans, hot-plug back-up drive and the split SCSI backplane for 2-channel Ultra320 SCSI configurations.

### Server Management

The Server Management occurs onboard via the Baseboard Management Controller (BMC) with IPMI 1.5 compatible Remote Management functions like e.g. system status monitoring, text console redirection independent of the installed operating system, system power on/off, available through the optional RemoteView software.

The system delivery includes the tried-and-tested products of the PRIMERGY ServerView Suite (ServerStart and ServerView).

### Further system functionalities

- 2 hot-plug PCI-X 100 MHz slots
- Onboard dual Gbit Ethernet controller
- Optional hot-plug media drive (DAT), occupies 2 hard disk drive bays
- The optional RemoteView Service Board (RSB) enhances the remote functionality e.g. with graphical console redirection and provides high-level security through its own LAN port and SSL encryption
- Simple identification in the racks thanks to LEDs at the front and rear

<b>Type</b>	Dual Processor Rack Server
<b>System board</b>	D 1409
Chip set	ServerWorks GC LE
Processors	Intel® Xeon™ (1 - 2)
Frequencies (GHz)	2.40, 2.66, 2.80, 3.06, 3.06, 3.20
Front-Side-Bus	533 MHz
Second-Level-Cache	512 Kbyte ECC
Third-Level-Cache	none / 1 Mbyte (3.06;3.20 GHz)
<b>Memory</b>	512 Mbyte up to max. 12 Gbyte
2-way interleaved, registered ECC PC2100 DDR SDRAM; 3 banks with 2 slots each for modules 256 Mbyte, 512 Mbyte, 1 and 2 Gbyte; memory scrubbing, Chipkill™ and hot-spare memory support	
<b>Flash-EPROM</b>	
Local BIOS update with floppy disk; Remote BIOS-Update via LAN with Global Flash and service partition, or through chip-DISK/RTDS via modem	
<b>Interfaces</b>	
Serial (for BMC only)	1x RS-232-C (9-pin)
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Parallel (option)	Centronics, 25-pin, EPP/ECP comp.
Keyboard, Mouse	2x PS/2
USB	1x front, 2x back; (OHCI, 12 Mbit/s)
Graphics	1x VGA (15-pin)
LAN	2x RJ45
SCSI (option)	external Ultra320 SCSI, 68-pin
<b>Front Panel</b>	
On/off switch; NMI-, reset button; LEDs for system status (amber), identification (blue), hard disks access (green), power (amber/green); (back: system status, identification)	
<b>Onboard controller</b>	
IDE (ATA100)	for 2 x 2 drives (CD / DVD)
SCSI (Adaptec 7902)	2-channel Ultra320 SCSI with RAID level 0, 1, 10 (HostRAID)
RAID option (PCI card, ZCR)	RAID level 5, 50 extension for onboard SCSI/RAID controller
LAN (BroadCom5704)	2x 10/100/1000 Mbit/s Ethernet
Graphics	ATI Rage XL 8 MB
Server management	Baseboard Management Controller (BMC), IPMI 1.5 compatible
<b>Hard disk drives</b>	18, 36, 73, 146 Gbyte, Ultra320 SCSI
1 Gbyte equals one billion bytes when referring to hard disk drive capacity; accessible capacity may vary.	
<b>I/O Slots (Standard)</b>	
2x PCI-X 64-bit / 100 MHz, low profile; hot-plug; 1x PCI-X 64-bit / 133 MHz, low profile; 1x PCI-X 64-bit / 100 MHz, low profile (ZCR support); 1x PCI 64-bit / 33 MHz, short, full height, 5V (RSB support)	
<b>I/O Slots (risercard option)</b>	
3x PCI-X 64-bit / 100 MHz, long, full height; 1x PCI 64-bit / 33 MHz, short, full height, 5V (RSB support)	
<b>Drive bays</b>	
for hard disks	6x 3.5/1-inch, slide-in chassis; over 1 or 2 SCSI channels (option)
for accessible drives	1x 5.25/0.5-inch, for CD or DVD; 1x 3.5/0.5-inch, for FD drive
for optional accessible drives	1x 3.5/2-inch for hot-plug tape drive, requires 2 hard disk bays
<b>System fan units (hot-plug)</b>	
Standard / redundant (option): 1 + 1 units, 4 fans each	

<b>Electrical values</b>	
Hot-plug power supply unit as standard. Additional hot-plug unit for redundancy option	
Output power	1 + 1, each 413 W
Rated AC voltage	100 - 127, 200 - 240 V
Frequency	50 - 60 Hz
max. apparent power	557 VA
max. effective power	540 W
max. mains current	6,0A (100-127V); 2,7A (200-240V)
max. heat dissipation	1944 kJ/h
<b>Temperature/Noise/Dimension/Weight</b>	
Ambient temperature	10°C - 35°C (EN60721-3-3 class 3K2)
Noise pressure	<= 54 dB (A) class3 ISO9296
Noise power	<= 6,8 B class3 ISO9296
Overall measures	85.9 * 482.6 * 761 (mm); (HxWxD)
Rack mount depth / U: Rack cable depth:	721 mm / 2 U, 100 mm (900mm Rack recommended)
Rack integration kit	inclusive telescopic rails as part of the standard delivery
Weight	~ 22 kg (configuration dependent)
<b>Compliance with Norm and Standards</b>	
<b>Product safety</b>	
Global / Europe	IEC 60950 / EN 60950
USA	UL 60950 3rd. Ed.
Canada	CAN/CSA-C22.2 No. 60950 3rd. Ed.
<b>Electro magnetic compatibility</b>	
Europe	EN 55 022 class A, EN 55024, EN 61000-3-2 / -3-3
Taiwan / Japan	BSMI class A; VCCI class A / JEIDA
Australia / New Zealand	C-Tick class A
USA / Canada	FCC class A
<b>Declaration of conformity</b>	
Europe (CE)	89/336/EEC(EMV);73/23 EEC(LVD)
North America	FCC class A
<b>Approvals</b>	
<b>Product safety</b>	
Global / Europe	CB / CE
USA / Canada	CSA <sub>US</sub> / CSA <sub>C</sub>
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, can be applied for on request.	
<b>Supported operating systems</b>	
Microsoft: Windows 2003 Enterprise; Standard; Web Edition Microsoft: Windows 2000 Advanced Server; Server Microsoft: Windows NT 4.0 EE; TSE; Server Novell: NetWare 6 int!; 6.5; Cluster Services 1.6; 1.7 Novell: iSCSI Cluster Services 1.7 SCO: UnixWare 7.1.3 SuSE: LINUX ES-8; LINUX 8.1; LINUX 8.2 Red Hat: LINUX EL2.1; EL3.0; LINUX 8.0; 9.0	
For supported controllers (onboard and PCI cards for SCSI, RAID, LAN, WAN, etc.), please refer to the corresponding system configurator.	
<b>Server Management</b>	
Standard:	ServerStart, ServerView; PDA, ASR&R
Optional:	RemoteView with IDE chipDISK and RemoteView Service Board

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