Data Sheet





PRIMERGY RX300 S2

Issue February, 14th 2005

Dual Processor Rack Server – Compact capacity in central service to your departments

Pages 2

PRIMERGY RX servers are perfect answers for an IT strategy that seeks to downsize data center infrastructure costs by enhancing transparency of structure, management overhead and maximizing the use of investments.

With RX rack servers and the PRIMECENTER rack enclosures, you benefit from our renowned experience in data center technology, which assures the best quality of data center operation. To guarantee heterogeneous data center assets, the PRIMECENTER modular design accommodates seamless integration of PRIMEPOWER compute nodes, storage SAN and NAS subsystems, as well as other infrastructure components such as hubs, KVM switches and more, using a universal power circuit structure.

Cost-effective scaling, simplified operation and enhanced quality of data center IT production are the main benefits in deploying PRIMERGY RX servers. Their centralized PRIMERGY Server View Suite management functions mean less troubleshooting and costs and remote access from anywhere at any time. The flexible custom supply model and our build-to-order process means that only fully built and pre-tested rack solutions are shipped to the customer – shortening your time to production.

PRIMERGY RX300 S2

It's business continuity that corporate departments need from data center providers. In addition, their demands for scaling in application workloads and data volume must be supported flexibly and at favourable cost structures, while providing dedicated computing power independent of other client requests.

That is when data center providers should opt for a compact, powerful rack server that does not compromise on capacity for performance, local data volume and continuous business service, yet makes the most of precious data center space. The RX300 rack server packs the capacity of a fully-featured departmental server into a rack design only 2 U in height, leaving room for up to 1.8 TB of local storage. With its failsafe built-in functionality, it is ideally suited to meet demands for continuous operation.



Key Features	Benefits
 Intel Xeon EM64Technology and up to 2 MB SLC for highest performance 	 With Intel Xeon EM64Technology the processor gives the company a way to ease into 64-bit computing, as soon as the individual need of the application comes up:
 Internal 6x 300 GB HD, up to 16 GB memory, up to 5 PCI-X slots, hot-plug tape option 	 High capacity for consolidation of data and application volumes within only 2 U height.
 hot-plug for PCI-X controller and hard disks, hot-spare memory and memory mirroring support (standard) split SCSI backplane, MegaRaid controller onboard, hot-plug, redundant power supply and fans (options) 	 Comfort and security for continuous operation
2 x Gbit/s Ethernet LAN	 Top-speed communications link via LAN as standard will assure continuity in failover mode

-	In	
Туре	Dual Processor Rack Server	
System board	D 1889	
Chip set	Intel® E7520	
Processors	Intel® Xeon™ (1 - 2)	
Frequencies (GHz)	2.80,3.00,3.20,3.40,3.60, (3.60)	
Front-Side-Bus	800 MHz	
Second-Level-Cache	1 Mbyte (2 Mbyte with 3.60 GHz) ECC	
Memory	1 Gbyte up to max. 16 Gbyte	
2-way interleaved, registered ECC DDR2-400 SDRAM; 4 banks with 2 slots each for PC3200 modules with 512, 1 and 2 (as soon as available) Gbyte; Memory Scrubbing, Chipkill™, Hot-spare Memory option and Memory Mirroring option Flash-EPROM		
Local BIOS update with floppy disk; Remote BIOS-Update via		
LAN with Global Flash and service partition, or through chipDISK/RTDS via modem Interfaces		
Serial	1x RS-232-C (9-pin) (usable for BMC or OS or shared)	
Serial	1x RS-232-C (9-pin)	
Parallel (option)	Centronics, 25-pin, EPP/ECP comp.	
Keyboard, Mouse	2x PS/2	
USB 2.0	2x front, 2x back; (OHCI, 480 Mbit/s)	
Graphics	1x VGA (15-pin)	
LAN	2x RJ45	
SCSI (option)	external Ultra320 SCSI, 68-pin	
Front Panel		
On/off switch; NMI-, reset button; LEDs for system status (amber), identification (blue), hard disks access (green), power (amber/green); (back: system status, identification) Onboard controller **		
IDE (ATA100)	for 1 x CD / DVD plus 1 x RemoteView	
SCSI (LSI53C1030)	2-channel Ultra320 SCSI with RAID level 1 (Integrated Mirroring Enhanced also for odd numbered HD's) (for	
	Windows and Linux)	
MegaRaid PCI	RAID level 0, 1, 10, 5, 50 extension for	
MegaRaid PCI Express™ RoMB (option)	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID	
Express™	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256	
Express™ RoMB (option)	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet	
Express™ RoMB (option)	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key	
Express™ RoMB (option) LAN (BroadCom5721) Graphics	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes with the company of the compa	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes of capacity may vary.	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes or capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 M (with IOOP TM bus 1 x 13 2 x PCI-X 64-bit / 133 M	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes or capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOP TM bus 1 x 13 2 x PCI-X 64-bit / 133 N I/O Slots (risercard opti	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) HHz, low profile; 3.3 V hot-plug ion)	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes vapacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOPTM bus 1 x 13 2 x PCI-X 64-bit / 133 N I/O Slots (risercard option 1 x PCI-X 64-bit / 100 N 2 x PCI-X 64-bit / 100 N 2 x PCI-X 64-bit / 100 N	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug ion)	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes or capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOPTM bus 1 x 13 2 x PCI-X 64-bit / 133 N I/O Slots (risercard option 1 x PCI-X 64-bit / 100 N 2 x PCI-X 64-bit / 100 N Drive bays	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug ion) MHz, long, full height; MHz, short, full height	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 M (with IOOPTM bus 1 x 13 N VO Slots (risercard option of the capacity of the capacity may vary. I/O Slots (Fisercard option of the capacity may vary. I/O Slots (risercard option of the capacity may vary. I/O Slots (risercard option of the capacity may vary. I/O Slots (risercard option of the capacity of the capa	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible IHz, low profile; 3.3 V 33MHz if only slot 3 is used) IHz, low profile; 3.3 V hot-plug Interpretation of the signal of the signal option of the signal of the signal of the signal option of the signal of the signal of the signal option of the signal of the signal option o	
Express TM RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes or capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOPTM bus 1 x 13 2 x PCI-X 64-bit / 133 N N/O Slots (risercard option of the property of the prope	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug ion) MHz, long, full height; MHz, short, full height 6x 3.5/1-inch, slide-in chassis; over 1 or 2 SCSI channels (option) 1x 5.25/0.5-inch, for CD or DVD; 1x 3.5/0.5-inch, for FD drive or LocalView display option	
Express™ RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes vapacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOP™ bus 1 x 13 2 x PCI-X 64-bit / 133 N I/O Slots (risercard option of the property of	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug ion) MHz, long, full height; MHz, short, full height 6x 3.5/1-inch, slide-in chassis; over 1 or 2 SCSI channels (option) 1x 5.25/0.5-inch, for CD or DVD; 1x 3.5/0.5-inch, for FD drive or LocalView display option 1x 3.5/2-inch for hot-plug tape drive,	
Express™ RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes or capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOP™ bus 1 x 13 N 2 x PCI-X 64-bit / 133 N N N Slots (risercard option 1 x PCI-X 64-bit / 100 N 2 x PCI-X 64-bit / 100 N Drive bays for hard disks for accessible drives	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug ion) MHz, long, full height; MHz, short, full height 6x 3.5/1-inch, slide-in chassis; over 1 or 2 SCSI channels (option) 1x 5.25/0.5-inch, for CD or DVD; 1x 3.5/0.5-inch, for FD drive or LocalView display option 1x 3.5/2-inch for hot-plug tape drive, requires 2 hard disk bays	
Express™ RoMB (option) LAN (BroadCom5721) Graphics Server management Hard disk drives 1 Gbyte equals one billion bytes capacity may vary. I/O Slots (Standard) 3 x PCI-X 64-bit / 100 N (with IOOP™ bus 1 x 13 2 x PCI-X 64-bit / 133 N I/O Slots (risercard option of the property of	RAID level 0, 1, 10, 5, 50 extension for onboard SCSI/RAID controller with 256 MB or 128 MB (with BBU option) RAID cache and iButton enable key 2x 10/100/1000 Mbit/s Ethernet ATI Rage XL 8 MB Baseboard Management Controller (BMC), IPMI 1.5 compatible 36, 73, 146, 300 Gbyte,U320 SCSI when referring to hard disk drive capacity; accessible when referring to hard disk drive capacity; accessible MHz, low profile; 3.3 V 33MHz if only slot 3 is used) MHz, low profile; 3.3 V hot-plug ion) MHz, long, full height; MHz, short, full height 6x 3.5/1-inch, slide-in chassis; over 1 or 2 SCSI channels (option) 1x 5.25/0.5-inch, for CD or DVD; 1x 3.5/0.5-inch, for FD drive or LocalView display option 1x 3.5/2-inch for hot-plug tape drive, requires 2 hard disk bays	

Electrical values			
1x Hot-plug power supply and Additional hot-plug unit for			
Output power	600 W / 1 + 1 x 600 W each		
Rated voltage range	100 - 240 V		
Rated frequency	50-60 Hz		
Max. rated current	100 V - 240 V / 8 A – 3 A		
Rated current in basic	100 V - 240 V / 4.2 A - 1.4 A		
configuration	100 V 240 V / 4.2 / 1.4 /		
Active power	681 W		
Apparent power	689 VA		
Heat emission	2452 kJ/h (2324 btu/h)		
Temperature/Noise/Dime	nsion/Weight		
Ambient temperature	10°C - 35°C (EN60721-3-3 class 3K2)		
Sound pressure L _{pAm}	<= 57 dB (A) (ISO9296)		
Sound power L _{WAd}	<= 7.1 B (ISO9296)		
Overall measures	85.9 * 482.6 * 785 (mm); (HxWxD)		
Rack mount depth / U:	745 mm / 2 U,		
Rack cable depth:	100 mm (900mm Rack		
	recommended)		
Rack integration kit	inclusive telescopic rails as part of the		
Weight	standard delivery ~ 25 kg (configuration dependent)		
=	, ,		
Compliance with Norm and Standards			
Product safety	LEC 00050 4 / EN 00050 4		
Global / Europe	IEC 60950-1 / EN 60950-1		
USA	UL 60950 3rd. Ed.		
Canada	CAN/CSA-C22.2 No. 60950 3rd. Ed.		
Electro magnetic compatibility			
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		
Declaration of conformit			
Europe (CE)	89/336/EEC(EMV);73/23 EEC(LVD)		
North America	FCC class A		
	I FOO Class A		
Approvals			
Product safety			
Global / Europe	CB / CE		
USA / Canada	CSA _{US} / CSA _C		
There is general compliant	ce with the safety requirements of all orth America. National approvals		
	statutory regulations or for other		
reasons, can be applied fo			
Supported operating systems			
	IA32 Standard, Enterprise Edition;		
Microsoft Windows 2003 Web Edition			
Microsoft: Windows 2000 Advanced Server; Server			
Novell: NetWare 6.5			
VMware: ESX Server 2.5 SCO: UnixWare 7.1.4			
SUSE: Enterprise Server 8 for X86 and 9 x86 / EM64T			
SUSE Linux 9.1 for X86			
Red Hat: Enterprise Linux 2.1; 3 for X86			
** For supported controllers (onboard and PCI cards for SCSI, RAID, LAN, WAN, etc.), please refer to the corresponding system			
configurator.			
Server Management (see separate data sheets)			
Standard:	PRIMERGY ServerView Suite;		
Optional:	PDA, ASR&R RemoteView with IDE chipDISK and		
Optional.	RemoteView Service Board (RSB S2)		
	· · · · · · · · · · · · · · · · · · ·		