Data Sheet

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PRIMERGY RX330 S1

Dual- and Quad-Core AMD Opteron™ Processor 2000 series based Rack Server – Standard server with high performance at low price

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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 maximizes 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 ServerView 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 RX330 S1

Corporate applications in data center server farms with central deployment and control demand increasing performance. The cost-efficient PRIMERGY RX330 S1 extends the PRIMERGY RACK portfolio and focuses rather on standard than on full feature set in comparison to RX300. RX330 S1 is offering enough local storage capacity to be used as a stand-alone application server and for server farms in scale-out environments with medium needs for availability features and virtualization focus. With 2 Dual- or Quad-Core AMD Opteron™ processors of the 2000 series and up to 32 Gbytes DDR2-667 direct addressable memory the PRIMERGY RX330 S1 matches your business application requirements perfectly. Therefore the PRIMERGY RX330 S1 with up to 6 hot-plug SAS or SATA hard disks in combination with disk mirroring function, sufficient free PCI slots for heavy I/O requirements, a redundant power supply option, provides you with a budget saving platform.

Key Features	Benefits
■ AMD Opteron™ processors of the 2000 series with AMD64Technology and up to 2x 1 MB SLC and 2 MB TLC (QC) for convincing performance	■ With AMD64 the processor gives the company a way to ease into 64-bit computing, as soon as the individual need of the application comes up: ■ Quad-Core offers double Dual-Core CPU performance within one socket. 8-socket performance with two Quad-Core processors is a real benefit for high performance computing.
■ Up to 6x 750 GB hot-plug SATA or 300 GB hot-plug SAS hard disks, up to 32 GB memory, 4 PCIe / PCI-X slots, storage integration Fibre channel add on, 2 U housing	■ Enhanced computing power on compact space Fast communication path through usage of PCI-Express
■ Integrated RAID 0, 1, 1E, LEDs, iRMC and ServerView Suite, optional RAID 5 (ZCR) and redundant power supply	■ 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

Type	Dual Socket Rack Server
System board	D 2440-A100
Chip set	BroadCom HT2100 plus HT1000
Processors	AMD Opteron™ 2000 series (1 - 2)
Type, Frequencies (GHz)	2214, 2,2 / 2216, 2.4 / 2218, 2.6 / 2220, 2.8 / 2222, 3.0GHz all 95W Dual-Core or 2346HE 1.80, 2347HE 1.90, 55W, QC 2352, 2.10, 2356, 2,30, 75W, QC
HyperTransport™-Bus	1 GHz
Second-Level-Cache	2x 1 Mbyte, 4x 512 Kbyte, ECC
Third-Level-Cache	2 Mbyte (QC)
Memory	1 Gbyte up to max. 32 Gbyte (16 Gbyte with 1 CPU)
2-way interleaved, registered ECC DDR2-667 SDRAM; 4 banks with 2 slots each for PC2-5300 modules with 512, 1, 2, 4 Gbyte; Memory Scrubbing, SDDC (Chipkill™)	
Flash-EPROM	
Local BIOS update with USB memory stick; Remote BIOS update via LAN with Global-Flash and service partition, or through PCE-Boot via LAN from PXE server	
Interfaces	
Serial	2x Serial RS-232-C (9 pin), (1x usable for iRMC or OS or shared)
Keyboard, Mouse	2x PS/2
USB 2.0	1x front, 2x back, 1x internal for iRMC
Graphics	1x VGA (15-pin)
LAN	3x RJ45 (1x for iRMC)
Onboard controller **	
IDE	Fast-IDE ATA100 (for 1x DVD)
SAS (LSI1068)	8-Port SAS controller with RAID level 0, 1 (**I**ntegrated **M**irroring **E**nhanced also for odd numbered HD´s) (for Windows and Linux)
RAID option (PCI card, ZCR)	RAID level 5 extension for onboard SAS/RAID controller
LAN (BCM5715)	2x 10/100/1000 Mbit/s Ethernet (PCE-Boot via LAN from PXE server), iSCSI Boot (also diskless) via onboard LAN
Server management	Integrated Remote Management Controller (iRMC) incl. graphics controller, IPMI 2.0 compatible
Hard disk drives	160, 250, 500, 750 Gbyte, SATA 73 146, 300 Gbyte SAS SAS / SATA Mix in separate RAID sets (SATA HD ≥250 GB)
1 Gbyte equals one billion bytes when referring to hard disk drive capacity; accessible capacity may vary.	
I/O Slots	PCI, PCI-Express
1x PCI-Express x8 low profile on Motherboard **and** 1x PCIe x8 Standard 1x PCIe x8 Standard 1x PCIe x4 Standard **or Riser opt.** 1x PCI-X 64/66MHz 1x PCI 64/66MHz, ZCR 1x PCI 64/66 MHz, ZCR	
Drive bays	
for hard disks	6x 3.5/1-inch for hot-plug SAS/SATA (Two SAS backplanes)
for accessible drives	1x 5,25/1,6-inch for tape, DVD-RW or CD-RW/DVD-ROM (option)
System fan unit (easy change)	
Standard 1 unit, 3 fans and control logic	
Electrical values	
1x hot-plug power supply unit (2nd redundant PSU as an option)	
Output power	625 W
Rated voltage range	100 - 240 V
Rated frequency	50 - 60 Hz
Max. rated current	100 V - 240 V / 5.1A – 2.5A
Rated current in basic configuration	100 V - 240 V / 2.4A - 1.2A

Active power	513 W
Apparent power	516 VA
Heat emission	1845.36 kJ/h (1749 btu/h)

Temperature/Noise/Dimension/Weight	
Ambient temperature	10°C - 35°C (DIN IEC 721-3-3) class 3K2, ETSI 300 019-2-3 Class 3.1 (
Declared noise emission according to ISO 9296	Idle Operating (ISO 7779) ETSI 300 753 Class 3.1
Sound pressure L_{pAm}	45.6 dB*** 54.0 dB***
Sound power L_{WAd}	6.1 B*** 6.8 B***
Overall measures	86 * 430 * 770 (mm); (HxWxD)
Rack mounting depth Rack height units: Rack cable depth:	710 mm, 2 U, 100 mm (900 mm Rack recommended)
Rack integration kit	inclusive telescopic rails as part of the standard delivery
Weight	18-25 kg (depends on configuration)
Compliance with Norm and Standards	
Product safety	
Europe	EN 60950-1
USA	UL 60950-1
Canada	CAN/CSA-C22.2 No. 60950-1
Electro magnetic compatibility	
This product and the released accessories, are in compliance with emission class A. In certain cases measures have to be taken to reduce the electro magnetic influence to other equipment.	
Europe	EN 55 022 class A, EN 55024, EN61000-3-2 / -3-3, ETSI EN300386
USA / Canada	FCC class A
Declaration of conformity	
Europe (CE)	2004/108/EC(EMV); 2006/95/EC(LVD)
North America	FCC class A
Approvals	
Product safety	
Global	CB
Europe	CE
Germany	GS
USA / Canada	CSA_{US} / CSA_C or UL_{US} / UL_C
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.	
Supported server operating systems	
See actual release status operating systems: e.g. Windows Server 2003; Windows Server 2008, Novell SUSE Linux Enterprise Server , Red Hat Enterprise Linux; VMware ESX (Support of Debian, Ubuntu, Mandriva Linux and other Linux derivatives on demand)	
** For supported controllers (onboard and PCI cards for SCSI, RAID, LAN, WAN, etc.), please refer to the corresponding system configurator. *** only with standard fans and standard PSU	
Server Management (see separate data sheets)	
Standard	PRIMERGY ServerView Suite; PDA, ASR&R
Optional	RemoteView, iRMC Advanced Pack
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, LAN activity, LAN mode 10/100/1000)	

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