

PRIMERGY RX220

Dual Opteron™ Processor Rack Server – Server farm performance on entry price level

Preliminary Data Sheet | For internal use only

Company confidential

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 RX220

Corporate applications in data center server farms with central deployment and control demand for increasing performance.

The cost-efficient PRIMERGY RX220 extends the PRIMERGY RACK portfolio to the lowest density basic feature segment with Dual Opteron™ CPU and focuses rather on maximum compute power than on maximum reliability in comparison to RX200. With technical evolutions like dual core CPU and 16 (32) Gbytes direct addressable memory the PRIMERGY RX220 matches your business application requirements perfectly. Therefore the dual Opteron™ PRIMERGY RX220 with its integrated hot-plug SATA hard disks in combination with disk mirroring function in a space-saving 1 U chassis provides you with a budget saving platform.

The processor support of 32- and 64-bit applications offers a secure investment for upcoming demands.



Key Features	Benefits
<ul style="list-style-type: none"> 64-bit AMD Opteron™ processors AMD64Technology and up to 2x 1 MB SLC with dual core processors for highest performance. 	<ul style="list-style-type: none"> 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: Dual core offers double CPU performance within one socket. Nearly 4-way performance with two dual core processors is a real benefit for high performance computing.
<ul style="list-style-type: none"> Up to 2x 250 GB SATA HD, 16 (32) GB memory, storage integration Fibre channel add on, 1U 	<ul style="list-style-type: none"> Enhanced computing power on compact space
<ul style="list-style-type: none"> Failsafe standards – 2 x 250 GB hot-plug or easy change hard disks, integrated RAID 0, 1, high speed fans, LEDs, ServerView Suite 	<ul style="list-style-type: none"> Minimum management overhead for powerful operation
<ul style="list-style-type: none"> 2 x Gbit/s Ethernet LAN 	<ul style="list-style-type: none"> Top-speed communications link via LAN as standard will assure continuity in failover mode

Type	Dual Processor / Socket Rack Server
System board	D 2130
Chip set	BroadCom BCM5780 / BCM5785
Processors	64-bit AMD Opteron™ (1 - 2)
Frequencies (GHz)	1.80, 2.00, 2.20, 2.40, 2.60 Single core and 1.80, 2.00, 2.20 Dual core
HyperTransport™-Bus	2 GHz
Second-Level-Cache	1 Mbyte (2x 1 Mbyte with Dual core) ECC
Memory	1 Gbyte up to max. 16 (32*) Gbyte
2-way interleaved, registered ECC DDR-400 SDRAM; 4 banks with 2 slots each for PC3200 modules with 512, 1, 2, 4*(as soon as available) Gbyte; Memory Scrubbing, 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	1x Serial RS-232-C (9 pin), usable for BMC or OS or shared
Keyboard, Mouse	2x PS/2
USB 2.0	2 x front, 2x back
Graphics	1x VGA (15-pin)
LAN	2x RJ45
Onboard controller **	
Promise PDC20319u SATA 150 RAID	2-port SATA 150 RAID for internal HDD's with RAID 0, 1 (for Windows and Linux)
RAID option	RAID level 0, 1
LAN (BCM5780)	2x 10/100/1000 Mbit/s Ethernet
Graphics	ATI Radeon 7000M, 16 MB
Server management	Baseboard Management Controller (BMC), IPMI 1.5 compatible
Hard disk drives	80, 160, 250 Gbyte, SATA 150
1 Gbyte equals one billion bytes when referring to hard disk drive capacity; accessible capacity may vary.	
I/O Slots	PCI-X, PCI-Express
1x PCI-X 64-Bit / 133 MHz standard long 1x PCI-Express x8 standard short 170 mm	
Drive bays	
for hard disks	2x 3.5/1-inch for easy change or hot-plug SATA
for accessible drives	1 x 5.25/0.5-inch IDE-CD- or DVD- or CD-RW-ROM
Electrical values	
1x standard power supply unit	
Output power	500 W
Rated voltage range	100 - 240 V
Rated frequency	50 - 60 Hz
Max. rated current	100 V - 240 V / 6.3A - 3.0A
Rated current in basic configuration	100 V - 240 V / 5A - 2.5A
Active power	500 W
Apparent power	670 VA
Heat emission	1800 kJ/h (1706 btu/h)

Temperature/Noise/Dimension/Weight	
Ambient temperature	10°C - 35°C (to IEC 721)
Sound pressure L _{pAm}	<= 55 dB (A) (ISO9296)
Sound power L _{WAd}	<= 7.2 Bell (ISO9296)
Overall measures	43 * 430 * 737 (mm); (HxWxD)
Rack mounting depth: Rack height units: Rack cable depth:	745 mm, 1 U, 100 mm (900 mm Rack recommended)
Rack integration kit	inclusive telescopic rails as part of the standard delivery
Weight	~ 14 kg (depends on configuration)

Compliance with Norm and Standards**Product safety**

Global	IEC 60950-1
Europe	EN 60950-1
USA	UL 60950-1
Canada	CAN/CSA-C22.2 No. 60950-1

Electro magnetic compatibility

Europe	EN 55 022 class A, EN 55024, EN61000-3-2 / -3-3
Taiwan / Japan	CNS 13438 Class A / -
Australia / New Zealand	C-Tick Class A / -
USA / Canada	FCC class A

Declaration of conformity

Europe (CE)	89/336/EEC (EMC); 72/23/EEC (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
Taiwan	BSM

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 operating systems

Microsoft: Windows 2003 Standard, Enterprise IA32 Edition;
Microsoft: Windows 2003 Standard, Enterprise x64 Edition;
Microsoft Windows 2003 Web Edition
Microsoft: Windows 2000 Advanced Server; Server
SUSE: Enterprise Server 9 for X86 / EM64T
Red Hat: Enterprise Linux 4 for X86 / EM64T

** 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; PDA, ASR&R
Optional	RemoteView

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)