



Highlights

- Provides a highly secure architecture and stable platform for deploying business processing applications
 - Facilitates consolidation of UNIX, IBM i and Linux workloads for midsized businesses
 - Helps you gain faster insights with the IBM POWER8 processor
 - Includes smart acceleration enabled by Coherent Accelerator Processor Interface (CAPI) technologies
 - Helps reduce energy consumption using advanced energy control
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IBM Power System S814 server

Open technology server for midsized business solutions

Power Systems: Innovation to put data to work

New innovation brings faster insight to the point of impact for today's data hungry applications

Built with innovation that puts data to work, IBM® Power Systems™ deliver the foundation for organizations to bring insight to the point of impact up to 2x faster. These first generation systems push the physical and virtual boundaries of data center technology with innovation designed to drive faster and more efficient data-centric applications required for today's smarter enterprise.

With new innovations, Power Systems can help you:

- Gain faster insights with the IBM POWER8™ processor and smart acceleration enabled by Coherent Accelerator Processor Interface (CAPI) technologies such as accelerators for key workloads
- Achieve lower latency and smaller footprint with CAPI Flash
- Move data in and out of systems more quickly with twice the memory and I/O expansion
- Achieve greater speed and efficiency for database, transactional and other highly multi-threaded applications with transactional memory supported by 50 percent more cores and 2x the number of simultaneous threads per core

Designed and optimized for big data and analytics

Businesses are amassing a wealth of data. Power Systems, built with innovation that puts data to work, can scale to support growing workloads and help businesses find insights faster. Power Systems are designed for



big data. From operational business intelligence and data warehouses to predictive analytics solutions, IBM Power® servers are optimized for the compute-intensive performance demands of database and analytics applications. These servers can flexibly scale to support the demands of rapidly growing data for mid-market businesses.

Delivering open innovation by revolutionizing the way IT is developed and delivered

With an architecture at the heart of the open server development community and the OpenPOWER Foundation, the open technology platform at the core of Power Systems presents a world of community created innovation, applications and technology components to help quickly deliver a broader set of applications and new technologies. Leveraging open standards, Power Systems provide developers with tools tuned for a platform that can boost productivity and performance by removing constraints imposed by commodity architecture. With continuous innovation built into the platform, Power Systems can enable future integrated hardware solutions designed to dramatically accelerate compute and data-intensive tasks.



IBM Power System S814 server

The IBM Power System S814 is designed to be a highly secure architecture providing a stable database and middleware platform for efficient deployment of business processing applications. A 1-socket system with a 6-core POWER8 processor is available in either a rack or tower configuration. The higher performance 8-core system is available in a rack configuration and supports new I/O capabilities including CAPI accelerators, higher internal disk and solid state disk (SSD) capacities, and hot plug PCIe Gen3 slots.



IBM Systems
Data Sheet

IBM Power System S814 server at a glance

System configurations	Model 8286-41A
Processor and Memory	
Microprocessors	One 4-core 3.02 GHz POWER8 processor card (rack and tower) or One 6-core 3.02 GHz POWER8 processor card (rack and tower) or One 8-core 3.72 GHz POWER8 processor card (rack only)
Level 2 (L2) cache	512 KB L2 cache per core
Level 3 (L3) cache	8 MB L3 cache per core
Level 4 (L4) cache	16 MB per DIMM
Memory Min/Max	One, two or four 16 GB 1600 MHz DDR3 module (4- core configuration only) 16 GB, 32 GB, 64 GB and 128 GB 1600 MHz DDR3 module, 16/1024 GB (for 6-core or 8-core configuration) Active Memory Sharing
Processor-to-memory bandwidth	192 GBps per socket
Storage and I/O	
Standard backplane	Eight (4-core) or twelve (6- or 8-core) small form factor (SFF) bays for Hard Disk Drive (HDD)/Solid State Disk (SSD)
With dual IOA higher function backplane	18 SFF bays for HDD/SSD (6- or 8-core only)
Media bays	One slimline DVD
Integrated SAS controller	Standard RAID 0,5,6,10. optional: 7200 MB [†] cache & Easy Tier function
Adapter slots	Included one x8 PCIe slots must contain a 4-port 1 Gb Ethernet LAN available for client use Seven PCIe Gen3 slots with concurrent maintenance: two x16 plus five PCIe Gen3 x 8 One CAPI adapter
I/O bandwidth	96 GBps per socket
Expansion features (Optional)	
Max PCIe Gen3 I/O drawer	1
Power, RAS, System Software, Physical Characteristics and Warranty	
Power supply	Tower: 100 V to 240 V; Rack: 100 V to 240 V
RAS features	Processor instruction retry Alternate processor recovery Selective dynamic firmware updates Chipkill memory ECC L2 cache, L3 cache Service processor with fault monitoring Hot-swappable disk bays Hot-plug concurrent maintenance PCIe slots Hot-plug and redundant power supplies and cooling fans Dynamic processor deallocation Extended error handling on PCI slots
Operating systems*	AIX, IBM i and Linux on POWER
System dimensions	Rack: 427.5 W x 173 H x 750.5 D mm Tower: 328.5 W x 522 H x 751.7 D mm
Warranty	3 year Limited Warranty, on site for selected components; CRU (customer replaceable unit) for all other units (varies by country), Next business day 9x5 (excluding holidays), warranty service upgrades and maintenance are available.

For more information

To learn more about the IBM Power System S814 server, please contact your IBM marketing representative or IBM Business Partner, or visit the following website:

ibm.com/systems/power/hardware/s814/index.html

For more information on hardware maintenance, software support, solution support and managed support, visit:

ibm.com/services/maintenance

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Actual available storage capacity may be reported for both uncompressed and compressed data and will vary and may be less than stated.

* See facts and features document for detailed OS level support.

† 1.8 GB write cache with compression up to 7.2 GB effective



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