



Highlights

- Use a high-performance, open standards-based system for cloud deployment
 - Run big data and analytics, Java, open source, and Linux industry-centric applications on a platform optimized for data
 - Realize low cost of acquisition and the ability to achieve superior economics
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IBM Power System S812LC

Deliver waitless analytics with a system optimized for efficiency and designed for big data

Disruptive trends in technology are remaking how organizations do business. Technology is advancing so rapidly, that dynamic communities of collaboration are forming just to harness it all. The growing torrent of data from within and outside your organization, mobile employees and customers and prospects, presents an unprecedented opportunity to gain valuable insights and apply them at the best point of impact to improve your business results.

Making the transition to advanced capabilities requires an integrated infrastructure that supports your key IT initiatives. IBM investments to bring new optimized solutions in the area of advanced analytics, cloud, and mobile access can simplify and accelerate your ability to seize today's market opportunities.

The next generation of IBM® Power Systems™, with IBM POWER8® technology, is the first family of systems built with innovations that transform the power of big data and analytics, mobile and cloud into



competitive advantages in ways that were never before possible. Our new scale-out systems provide powerful, scalable, and economical means to put data to work for you. The IBM Power System S812LC provides:

- Superior throughput and performance for high value Linux workloads such as LAMP¹, big data and analytics, or industry applications.
- Low acquisition cost through system optimization (industry standard memory, selected configurations, industry standard warranty)
- A system optimized for Hadoop with up to 14 large form factor (LFF) drives installed in a 2U rack-optimized form factor
- A solution optimized for clusters and scale-out deployments built on a 1S2U platform with up to 10 cores of POWER8

The waitless world demands open innovation

Power Systems are designed for big data and deliver the performance and throughput of POWER8 combined with the cost optimization of industry standardization—all without the wait.

Designed for the demands of big data and analytics

Businesses are amassing a wealth of data. Power Systems can store it, secure it and, most importantly, extract actionable insight from it in a timeframe that matters. Power Systems are designed for big data. From predictive analytics and data warehouses to unstructured big data processing and cognitive IBM Watson™ solutions, Power servers are optimized for the compute-intensive performance demands of database and analytics applications, and can flexibly scale to support the demands of rapidly growing data.



IBM Power System S812LC

IBM Power System S812LC is designed to deliver superior performance and throughput for big data, analytics and high-value Linux workloads. It offers a low cost replacement for x86 blades with the performance of POWER8 and 14 integrated LFF drives. The Power S812LC offers clients the advantages of running their Hadoop, Java, open source and industry applications on a platform designed and optimized for data and Linux. With its modular 1S2U design, the Power S812LC is optimized for clusters and can scale from a single rack to hundreds.

IBM Systems
Data Sheet

Power System S812LC at a glance

System configurations	Model 8348-21C
Processor and Memory	
Microprocessors	One 8-core 3.32 GHz POWER8 processor card or one 10-core 2.92 GHz POWER8 processor card
Level 2 (L2) cache	512 KB L2 cache per core
Level 3 (L3) cache	8 MB L3 cache per core
Level 4 (L4) cache	Up to 64 MB
Memory Min/Max	4 GB, 8 GB, 16 GB and 32 GB 1333 MHz DDR3 module, 128 GB to 1 TB (with the exception of 32 GB predefined configuration)
Processor-to-memory bandwidth	115 GBps (Max sustained memory bandwidth to L4 cache from SCM) 170 GBps (Max peak memory bandwidth to DIMMs from L4 cache)
Storage and input/output (I/O)	
Standard backplane	2 in rear LFF or SFF bays 12 more LFF or SFF in front required a discrete RAID adapter to enable
Media bays	n/a
RAID option	Hardware RAID comes from optional PCIe adapter
Adapter slots	Four PCIe Gen3 slots: One x16 and three x8 PCIe Gen3
I/O Bandwidth	32 GBps
Power, RAS, system software and physical characteristics and warranty	
Power supply	100 V to 240 V
RAS features	Processor instruction retry Selective dynamic firmware updates Chip kill memory ECC L2 cache, L3 cache Service processor with fault monitoring Hot-swappable front disk bays Hot-plug and redundant power supplies Redundant cooling fans
Operating systems*	Linux on POWER
System dimensions	450 W x 87 H x 711 D mm
Warranty	3 year limited warranty; CRU (customer replaceable unit) for all other units (varies by country), next business day 9am to 5pm (excluding holidays), warranty service upgrades and maintenance are available.

Why IBM?

IBM is honored to be recognized by readers of the Linux Journal as the winner of the “Best Linux Server Vendor” category in the 2013 Readers’ Choice Awards—for the third year in a row. This recognition demonstrates the value of IBM’s continued commitment to industry-leading collaboration and revolutionary technology.

Recently, IBM announced a new USD 3 billion research and development investment to create the next generation of chip technologies that will fuel the systems required for cloud, big data and cognitive computing. More specifically, these new materials include carbon nanotubes, graphene and nanophotonics to create system features at seven nanometers and beyond.

For more information

To learn more about the IBM Power System S812LC, please contact your IBM marketing representative or IBM Business Partner, or visit the following website:

ibm.com/marketplace/cloud/big-data-infrastructure/us/en-us

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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.
<http://www-03.ibm.com/systems/power/hardware/reports/factsfeatures.html>

¹ Linux, Apache, MySQL and PHP



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