

## ThinkSystem SR635 Sets World Record with New 1U 1-Socket SPECpower Result

### Performance Benchmark Result

The Lenovo ThinkSystem SR635 has set a new one-processor performance world record with a 1U rack server for the SPECpower\_ssj 2008 benchmark.

The SPECpower\_ssj 2008 benchmark is the first industry-standard benchmark that evaluates the power and performance characteristics of single server and multi-node servers.

The ThinkSystem SR635 server delivered the following SPECpower\_ssj 2008 1-socket world record performance result for a 1U rack server:



- **SPECpower\_ssj2008 = 18,555 overall ssj\_ops/watt**

The SR635 was configured as follows:

- 1x AMD EPYC 7742 processor (64 cores, 2.25 GHz core frequency, 256 MB L3 cache)
- 128 GB of Lenovo TruDDR4 memory
- 1x 128GB M.2 SSD
- SUSE Linux Enterprise Server 12 SP4
- Oracle Java HotSpot 64-bit Server VM, version 11.0.3 (JVM)

Results referenced are current as of August 7, 2019.

This benchmark result can be found at the following web page:

[https://www.spec.org/power\\_ssj2008/results/res2019q3/power\\_ssj2008-20190717-00985.html](https://www.spec.org/power_ssj2008/results/res2019q3/power_ssj2008-20190717-00985.html)

To view all SPECpower\_ssj 2008 results, see the following page:

[https://www.spec.org/power\\_ssj2008/results/](https://www.spec.org/power_ssj2008/results/)

## About the ThinkSystem SR635

The Lenovo ThinkSystem SR635 with the next generation AMD EPYC architecture is ideal for I/O intensive workloads, from databases and analytics, to virtualized environments (VDI) and hybrid cloud solutions. This 1U, single socket rack server is right-sized to offer the balanced processor power, performance, memory and I/O of a 2-socket server at the value and total cost of ownership of a 1-socket server.

With the enterprise class AMD EPYC 7002 Generation processor, the world's first 7nm data center CPU, the SR635 features up to an unprecedented 64 cores with 128 PCIe lanes in a single socket to reduce bottlenecks and increase server utilization.

Compared to the previous processor generations, ThinkSystem servers with AMD architecture deliver up to 2X performance and 4X floating point capability with PCIe Gen4 support and faster memory speeds up to 3200 MHz, providing faster data transfer and analytics without sacrificing memory capacity or I/O.

Key features of the SR635 include:

- High capacity storage, with support for up to 16x2.5" drives. When the server is outfitted with 16 low-latency NVMe drives, the server is an ideal platform for OLTP, Analytics, software-defined and HPC storage.
- Up to three single-wide GPUs to provide workload acceleration for AI inference and VDI applications.
- Full support PCIe Gen4 to achieve up to 16 GT/s for accelerated data transfer speeds. This new technology enables the next-generation of technology for grid-computing and high-frequency trading analytics in the financial services sector, and capacity planning and supply chain optimization in both the telco and manufacturing industries.

## About SPECpower

The SPEC Power benchmark suite measures the power and performance characteristics of server-class computer equipment. It is used to compare power and performance among different servers and serves as a toolset for use in improving server efficiency. This benchmark is targeted for use by hardware vendors, IT industry, computer manufacturers, and governments.

## Learn more

To learn more about power-efficient solutions for compute-intensive applications, please contact your Lenovo Sales Representative.

To find out more about SPEC, visit <https://www.spec.org>

To learn more about the Lenovo ThinkSystem SR635 server, visit the SR635 product web page: <https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR635-Server/p/77XX7SRSR35>

## Related product families

Product families related to this document are the following:

- [1-Socket Rack Servers](#)
- [SPECpower Benchmark Results](#)
- [ThinkSystem SR635 Server](#)

## Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service. Lenovo may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

Lenovo (United States), Inc.  
8001 Development Drive  
Morrisville, NC 27560  
U.S.A.  
Attention: Lenovo Director of Licensing

LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Lenovo may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary. Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk. Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

© Copyright Lenovo 2025. All rights reserved.

This document, LP1208, was created or updated on August 7, 2019.

Send us your comments in one of the following ways:

- Use the online Contact us review form found at:  
<https://lenovopress.lenovo.com/LP1208>
- Send your comments in an e-mail to:  
[comments@lenovopress.com](mailto:comments@lenovopress.com)

This document is available online at <https://lenovopress.lenovo.com/LP1208>.

## Trademarks

Lenovo and the Lenovo logo are trademarks or registered trademarks of Lenovo in the United States, other countries, or both. A current list of Lenovo trademarks is available on the Web at <https://www.lenovo.com/us/en/legal/copytrade/>.

The following terms are trademarks of Lenovo in the United States, other countries, or both:

Lenovo®

ThinkSystem®

The following terms are trademarks of other companies:

AMD and AMD EPYC™ are trademarks of Advanced Micro Devices, Inc.

Linux® is the trademark of Linus Torvalds in the U.S. and other countries.

SPEC®, SPECpower\_ssj®, and SPECpower® are trademarks of the Standard Performance Evaluation Corporation (SPEC).

Other company, product, or service names may be trademarks or service marks of others.