

ThinkSystem SR655 V3 Sets 8 World Records with New SPECcpu Benchmark Results

Performance Benchmark Result

The Lenovo ThinkSystem SR655 V3 server has set eight performance world records for compute-intensive applications with new results of the SPEC CPU2017 benchmark.

The benchmark world records are:

- Best SPECspeed2017_fp_energy_base score on a 1-processor system
- Best SPECspeed2017_fp_energy_base score
- Best SPECspeed2017_fp_energy_peak score on a 1-processor system
- Best SPECspeed2017_fp_energy_peak score
- Best SPECrate2017_int_energy_base score on a 1-processor system
- Best SPECrate2017_int_energy_peak score on a 1-processor system
- Best SPECrate2017_fp_energy_base score on a 1-processor system
- Best SPECrate2017_fp_energy_peak score on a 1-processor system

These new benchmark results, published in new SPEC reports on July 1, 2023, demonstrate that the ThinkSystem SR655 V3 continues Lenovo's leadership with outstanding performance for the server industry.



The eight world records were achieved with the following six top SPEC CPU2017 scores:

- **SPECspeed2017_fp_energy_base: 1010** (1,2)
- **SPECspeed2017_fp_energy_peak: 1020** (3,4)
- **SPECrate2017_int_energy_base: 2210** (5)
- **SPECrate2017_int_energy_peak: 2350** (6)
- **SPECrate2017_fp_energy_base: 1970** (7)
- **SPECrate2017_fp_energy_peak: 2050** (8)

SPECspeed2017 scores are ideal for measuring single-threaded compute-intensive applications, such as High Frequency Trading (HFT) and other financial industry workloads.

SPECrate2017 scores are ideal for measuring multi-threaded compute-intensive applications, such as High Performance Computing (HPC) workloads.

The Lenovo ThinkSystem SR655 V3 server was configured as follows:

- 1x AMD EPYC 9754 "Bergamo" processor - 128 cores, 2.25 GHz, 256 MB L3 cache per processor
- 384 GB system memory
- SUSE Linux Enterprise Server 15 SP4

The results are current as of July 1, 2023. To view details of the results, see the following SPEC web pages:

(1) Best overall 1 CPU SPECspeed2017_fp_energy_base score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36761.html>

(2) Best overall SPECspeed2017_fp_energy_base score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36761.html>

(3) Best overall 1 CPU SPECrated2017_fp_energy_peak score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36761.html>

(4) Best overall SPECrated2017_fp_energy_peak score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36761.html>

(5) Best overall 1 CPU SPECrated2017_int_energy_base score.
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36762.html>

(6) Best overall 1 CPU SPECrated2017_int_energy_peak score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36762.html>

(7) Best overall 1 CPU SPECrated2017_fp_energy_base score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36764.html>

(8) Best overall 1 CPU SPECrated2017_fp_energy_peak score
<https://spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36764.html>

To view all SPEC CPU2017 results, go to
<http://www.spec.org/cpu2017/results/>

About the ThinkSystem SR655 V3

The Lenovo ThinkSystem SR655 V3 is a 1-socket 2U server that features the 5th Gen AMD EPYC "Turin" family processors. With up to 160 cores per processor and support for the new PCIe 5.0 standard for I/O, the SR655 V3 offers the ultimate 1-socket server performance in a 2U form factor. The server is ideal for dense workloads that can take advantage of GPU processing and high-performance NVMe drives.

The SR655 V3 server is a highly agile offering, supporting 31 different drive bay configurations utilizing the front, middle and rear locations of the server. It also includes 6 different slot configurations at the rear of the server. This adds flexibility to ensure that you can configure the server exactly the way your workload requires.

Combining performance and flexibility, the SR655 V3 server is a great choice for enterprises of all sizes. The server offers a broad selection of drive and slot configurations and offers high performance features that industries such as finance, healthcare and telco need. Outstanding reliability, availability, and serviceability (RAS) and high-efficiency design can improve your business environment and can help save operational costs.

About SPEC CPU2017

SPEC CPU 2017 is SPEC's next-generation, industry-standardized, CPU intensive suite of benchmarks for measuring and comparing compute intensive performance, stressing a system's processor, memory subsystem and compiler. This benchmarks provides a comparative measure of compute-intensive performance using workloads developed from real user applications.

The SPEC CPU 2017 benchmark suite measures server performance in the following ways:

- SPECspeed 2017 is to compare time for a computer to complete single tasks
- SPECrate 2017 is to measure the throughput or work per unit of time.

This benchmark is targeted for use by hardware vendors, IT industry, computer manufacturers, and government.

Learn more

To learn more about 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 SR655 V3 server, visit the SR655 V3 product web page: <https://www.lenovo.com/us/en/p/servers-storage/servers/racks/thinksystem-sr655-v3/len21ts0021>

Related product families

Product families related to this document are the following:

- [1-Socket Rack Servers](#)
- [SPECcpu Benchmark Results](#)
- [ThinkSystem SR655 V3 Server](#)

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