

ThinkSystem SR655 Sets Four World Records with New 1-Socket SPECcpu Results Performance Benchmark Result

The Lenovo ThinkSystem SR655 server delivers world-record single-socket performance for compute-intensive applications with four new results of the SPEC CPU2017 benchmark.

The ThinkSystem SR655 with one processor achieved the following SPEC CPU2017 scores:

- **SPECspeed2017_fp_base: 133**
- **SPECrate2017_int_base: 349**
- **SPECrate2017_int_peak: 385**
- **SPECrate2017_fp_base: 268**



The SPECspeed2017_fp score is ideal for measuring single-threaded compute-intensive applications, such as High Frequency Trading (HFT) and other financial industry workloads. The SPECrate2017_int and SPECrate2017_fp scores are ideal for measuring multi-threaded compute-intensive applications, such as High Performance Computing (HPC) workloads.

The ThinkSystem SR655 was configured as follows:

- 1x AMD EPYC 7742 processor - 64 cores, 2.25 GHz, 256 MB L3 cache per processor
- TruDDR4 memory as follows:
 - SPECspeed2017_fp_base: 512 GB
 - SPECrate2017_int_base: 256 GB
 - SPECrate2017_int_peak: 256 GB
 - SPECrate2017_fp_base: 512 GB
- SUSE Linux Enterprise Server 15 SP1

The result is current as of August 7, 2019.

To view details of these results, go to:

- SPECspeed2017_fp_base
<http://spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16289.html>
- SPECrate2017_int_base
<http://spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16290.html>
- SPECrate2017_int_peak
<http://spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16290.html>
- SPECrate2017_fp_base
<http://spec.org/cpu2017/results/res2019q3/cpu2017-20190722-16292.html>

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

About the ThinkSystem SR655

The Lenovo ThinkSystem SR655 is a 1-socket 2U server that features the AMD EPYC 7002 "Rome" and AMD EPYC 7003 "Milan" families of processors. With up to 64 cores per processor and support for the PCIe 4.0 standard for I/O, the SR655 offers the ultimate in single-socket server performance. With up to 128 PCIe lanes, the server is ideal for workloads that can take advantage of GPU processing and high-performance NVMe drives.

ThinkSystem SR655 is a multi-GPU optimized rack server, with support for up to 6 single-wide GPUs providing 200% more workload acceleration in AI, SDI and VDI instances. Capacity for up to 32x 2.5" low-latency NVMe drives that pairs well with the demands of low-latency, high-bandwidth storage such as clustered SAN solutions and software-defined storage. Eight PCIe Gen4 slots offer 2x faster I/O and support for 16 DIMMs with 2TB of DDR4 memory capacity ensure the SR655 is ideal for high performance database applications.

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 server, visit the SR655 product web page: <https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR655-Server/p/77XX7SRSR75>

Related product families

Product families related to this document are the following:

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

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