



# ThinkSystem SR850P SPEC CPU2017 Performance Measurements with Power Consumptions for All Preset Operating Modes

## Performance Benchmark Result (withdrawn product)

SPEC CPU2017 rate int base performance benchmark scores and power consumptions were measured on ThinkSystem SR850P for all preset Operating Modes in January 2022.



Figure 1. Lenovo ThinkSystem SR850P

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

The ThinkSystem SR850P was configured as follows:

- Processors: 4x Intel Xeon 8280 processor - 28 cores, 2.70 GHz, 38.5 MB L3 cache
- 768 GB system memory – 24x 32GB Samsung 2Rx4 2933MHz
- SLES 15 SP2

The table below summarizes the results.

Table 1. SPECcpu results

UEFI preset Operating Mode	Minimal Power	Efficiency – Favor Power	Efficiency – Favor Performance (Default)	Maximum Performance
SPECrate_int_base	599	643	695	695
SPECrate_int_energy_base	738	712	661	660
SPECrate_int_base Max Power (Watts)	1112.1	1188.9	1305.9	1349.9
SPECrate_int_base Idle Power (Watts)	134.87	137.85	140.13	476.6

## About the ThinkSystem SR850P

The Lenovo ThinkSystem SR850P is a 4-socket performance server that features a streamlined 2U rack design, optimized for price and performance, with best-in-class flexibility and expandability. The four processors in the SR850P are configured in a mesh configuration to maximize performance in multi-threaded applications. The ThinkSystem SR850P's agile design provides rapid upgrades for memory, and its large, flexible storage capacity helps to keep pace with data growth.

The ThinkSystem SR850P server supports four second-generation Intel Xeon Scalable Gold or Platinum processors. Built for standard workloads like general business applications and server consolidation, it can also accommodate high-growth areas such as databases and virtualization. The ThinkSystem SR850P's agile design permits rapid upgrades for memory, and its large, flexible storage capacity helps to keep pace with data growth. With the capacity to support up to 48 DIMMs, mix-and-match internal storage with up to 16 drives, and a dedicated slot for Gigabit or 10 GbE networking, the SR850P provides unmatched features and capabilities in a dense 2U rack-mount design.

## About SPEC CPU2017

SPEC CPU 2017 is SPEC's industry-standard 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.

## Related product families

Product families related to this document are the following:

- [SPECcpu Benchmark Results](#)
- [ThinkSystem SR850P Server](#)

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