

The Lenovo logo, consisting of the word "Lenovo" in white sans-serif font on a red rectangular background.

ThinkSystem SR630 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Performance Benchmark Result (withdrawn product)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 SR630 for all preset Operating Modes in January 2022.



Figure 1 Lenovo ThinkSystem SR630

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

The ThinkSystem SR630 was configured as follows:

- Processors: 2x Intel Xeon 8280 processor - 28 cores, 2.70 GHz, 38.5 MB L3 cache
- 384 GB system memory – 12x 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	301	324	348	348
SPECrate_int_energy_base	716	687	636	633
SPECrate_int_base Max Power (Watts)	591.1	651.4	672.7	692.4
SPECrate_int_base Idle Power (Watts)	83.95	84.55	84.69	256.62

About the ThinkSystem SR630

Lenovo ThinkSystem SR630 is an ideal 2-socket 1U rack server for small businesses up to large enterprises that need industry-leading reliability, management, and security, as well as maximizing performance and flexibility for future growth. The SR630 server is designed to handle a wide range of workloads, such as databases, virtualization and cloud computing, virtual desktop infrastructure (VDI), infrastructure security, systems management, enterprise applications, collaboration/email, streaming media, web, and HPC.

Featuring the Intel Xeon Processor Scalable Family, the SR630 server offers scalable performance and storage capacity. The SR630 server supports up to two processors, up to 1.5 TB (support for up to 3 TB is planned for future) of 2666 MHz TruDDR4 memory, up to 12x 2.5-inch or 4x 3.5-inch drive bays with an extensive choice of NVMe PCIe SSDs, SAS/SATA SSDs, and SAS/SATA HDDs, and flexible I/O expansion options with the LOM slot, the dedicated storage controller slot, and up to 3x PCIe slots.

The SR630 server offers basic or advanced hardware RAID protection and a wide range of networking options, including selectable LOM, ML2, and PCIe network adapters. The next-generation Lenovo XClarity Controller, which is built into the SR630 server, provides advanced service processor control, monitoring, and alerting functions.

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 benchmark 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 SR630 Server](#)

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