Smarter technology for all

Servicing the ThinkSystem SR850 V4

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Preface

Current release date: July 2025
Current release level: 1.0

To provide feedback or receive more information about this course, send an email to: ServicesEdu@Lenovo.com

Prerequisites

- ES42692 – Intel Xeon processor architecture for ThinkSystem V4 servers
- ES52678 – ThinkSystem tools for the ThinkSystem V4 platform
- ES41759C – ThinkSystem problem determination

Objectives

After completing the course, you will be able to:

- Describe the ThinkSystem SR850 V4 server and components
- List the SR850 V4 specifications
- Describe the SR850 V4 configurations and block diagrams
- Describe the SR850 V4 management tools
- Describe the problem determination steps and explain how to troubleshoot issues with the SR850 V4

Product overview

Product description and front, rear, and inside views

Product overview

The ThinkSystem SR850 V4 is a 2U four-socket rack server that features Intel Xeon Scalable 6700 P-Series processors (Intel code name: Birch Stream). The SR850 V4 supports 2.5-inch drives or E3.S drives in the front drive bays.

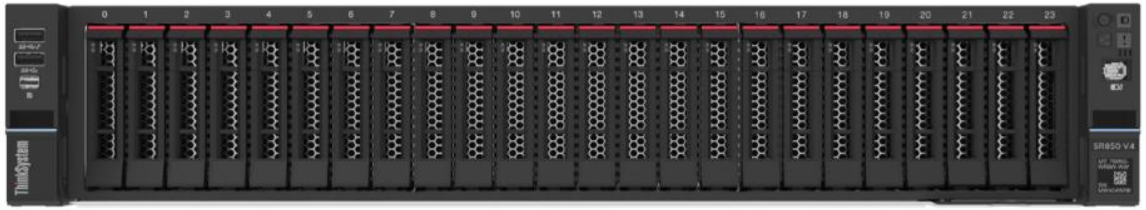
The SR850 V4 has 64 DIMM slots, and it also supports compute express link (CXL) memory modules in the front E3.S bays for memory expansions.

There are three SR850 V4 machine types:

- 7DJS: three-year warranty
- 7DJT: one-year warranty
- 7DJU: SAP HANA configurations with a three-year warranty

Front views

The SR850 V4 supports the following front bay configurations:



24 2.5-inch hot-swap SAS/SATA or AnyBay drives

32 E3.S 1T hot-swap drives

16 E3.S 2T non-hot-swap CXL memory modules

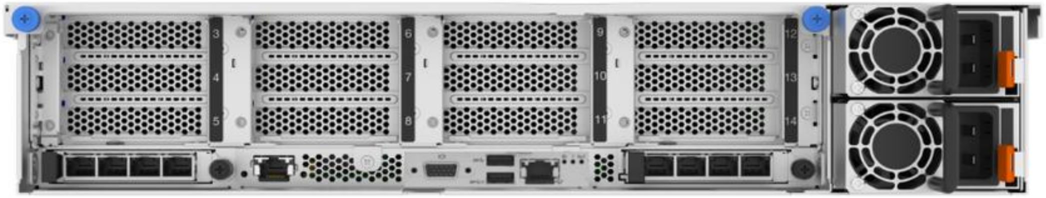
Click HERE to see descriptions of the front I/O ports.

Rear views

The SR850 V4 supports three or four PCIe risers and two OCP slots at the rear.
The three-PCIe riser configuration supports optional hot-swap M.2 drives.

Three-riser configuration

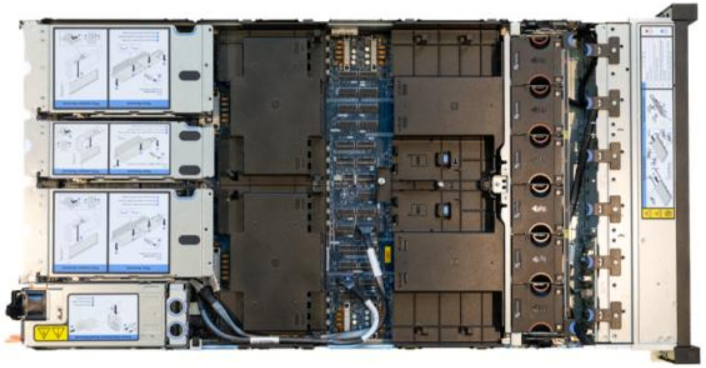
Three-riser configuration with optional hot-swap M.2 drives



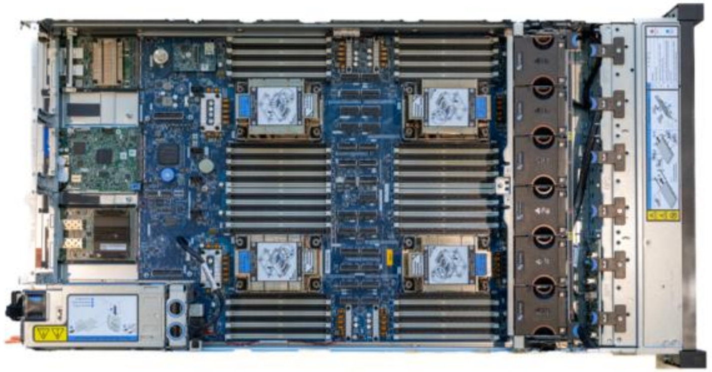
Four-riser configuration

Inside views

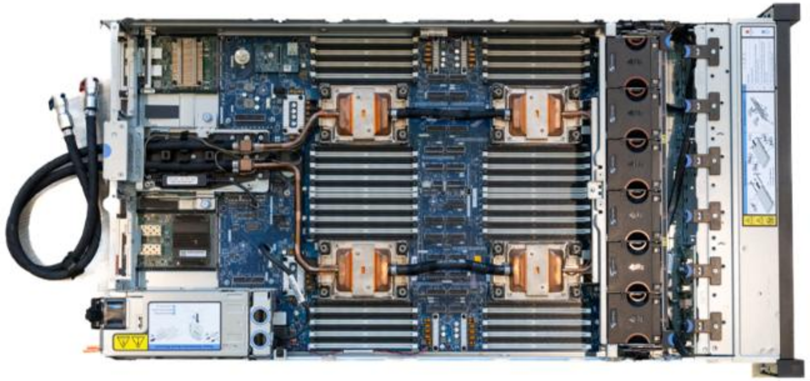
Click the pictures to see more information.



Air-cooling system
with air baffle installed



Air-cooling system
without air baffle



System with processor liquid-cooling
Neptune core module installed

Rear heat sink types

Depending on the processor and PCIe adapter configurations, the SR850 V4 should be installed with one of the following rear heat sinks:

1U standard heat sink

2U standard heat sink

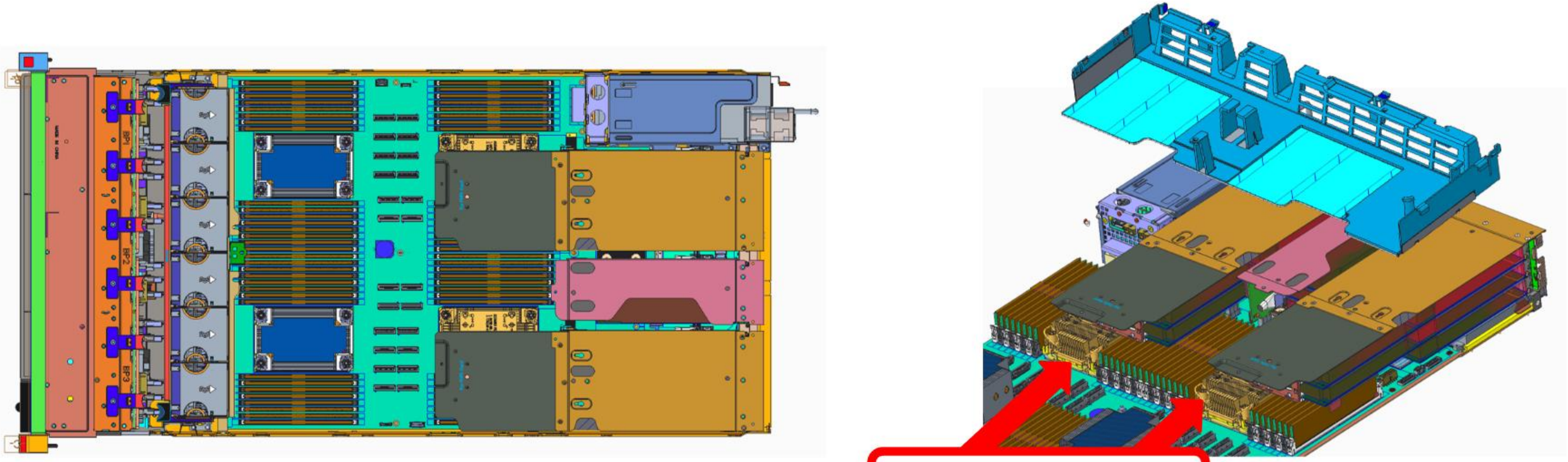
2U performance heat sink

Click the buttons to see more information about each type of heat sink.

Rear heat sink types

Rear 1U standard heat sink

- Support for full-length and half-length PCIe adapter configurations
- No support for the field kit to change from half-length to full-length PCIe riser cages
- A unique 1U rear air baffle is required

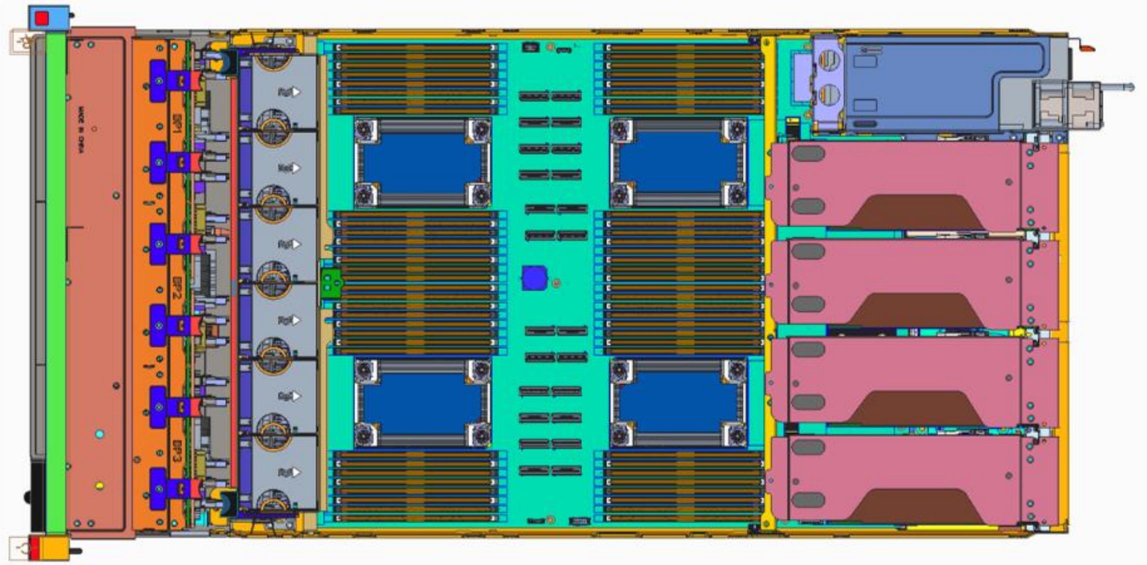


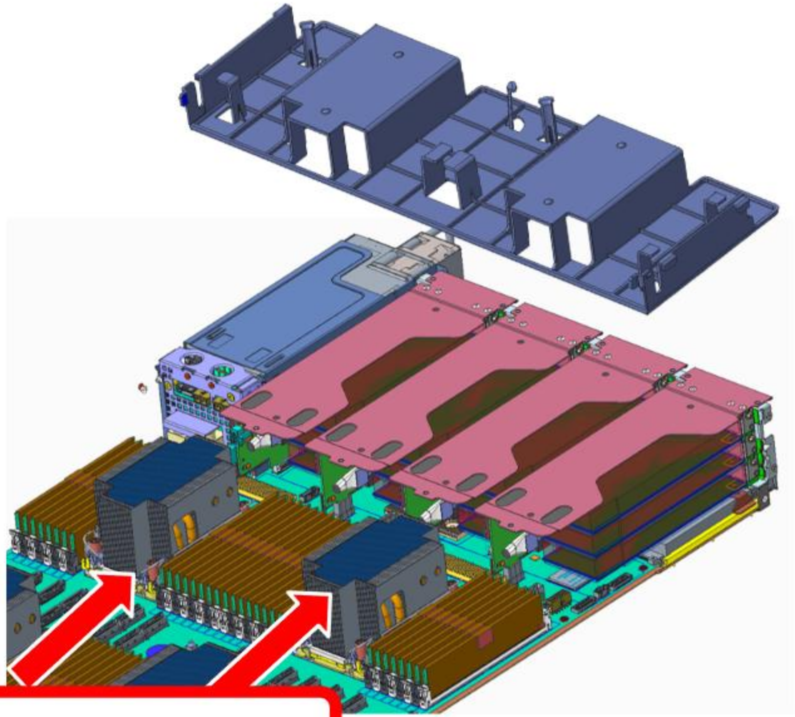
1U standard heat sink

Rear heat sink types

Rear 2U standard heat sink

- Support for the half-length PCIe adapter configuration only
- No support for the field kit to change from half-length to full-length PCIe riser cages
- A unique 2U rear air baffle is required

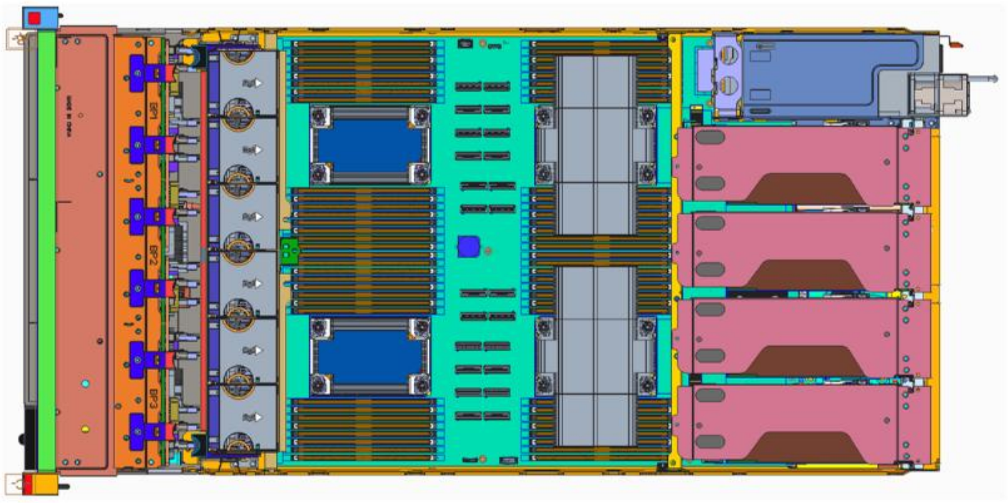


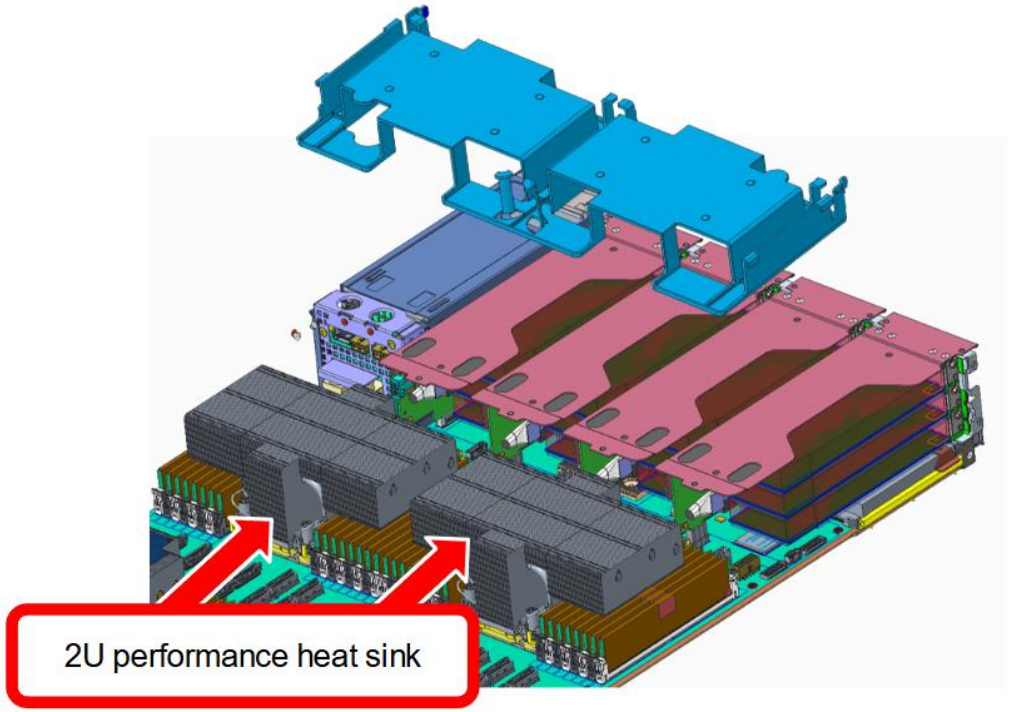


2U standard heat sink

Rear 2U performance heat sink

- Support for the half-length PCIe adapter configuration only
- No support for the field kit to change from half-length to full-length PCIe riser cages
- A unique 2U rear air baffle is required
- Before replacing a DIMM under a 2U performance heat sink, the service engineer must remove the 2U performance heat sink





USB I/O board

For the optional front USB ports with Mini DisplayPort configuration, an internal USB I/O board is required. The internal USB I/O board also has a USB port, which can be used to install the OS or license key.