System configurations and diagrams
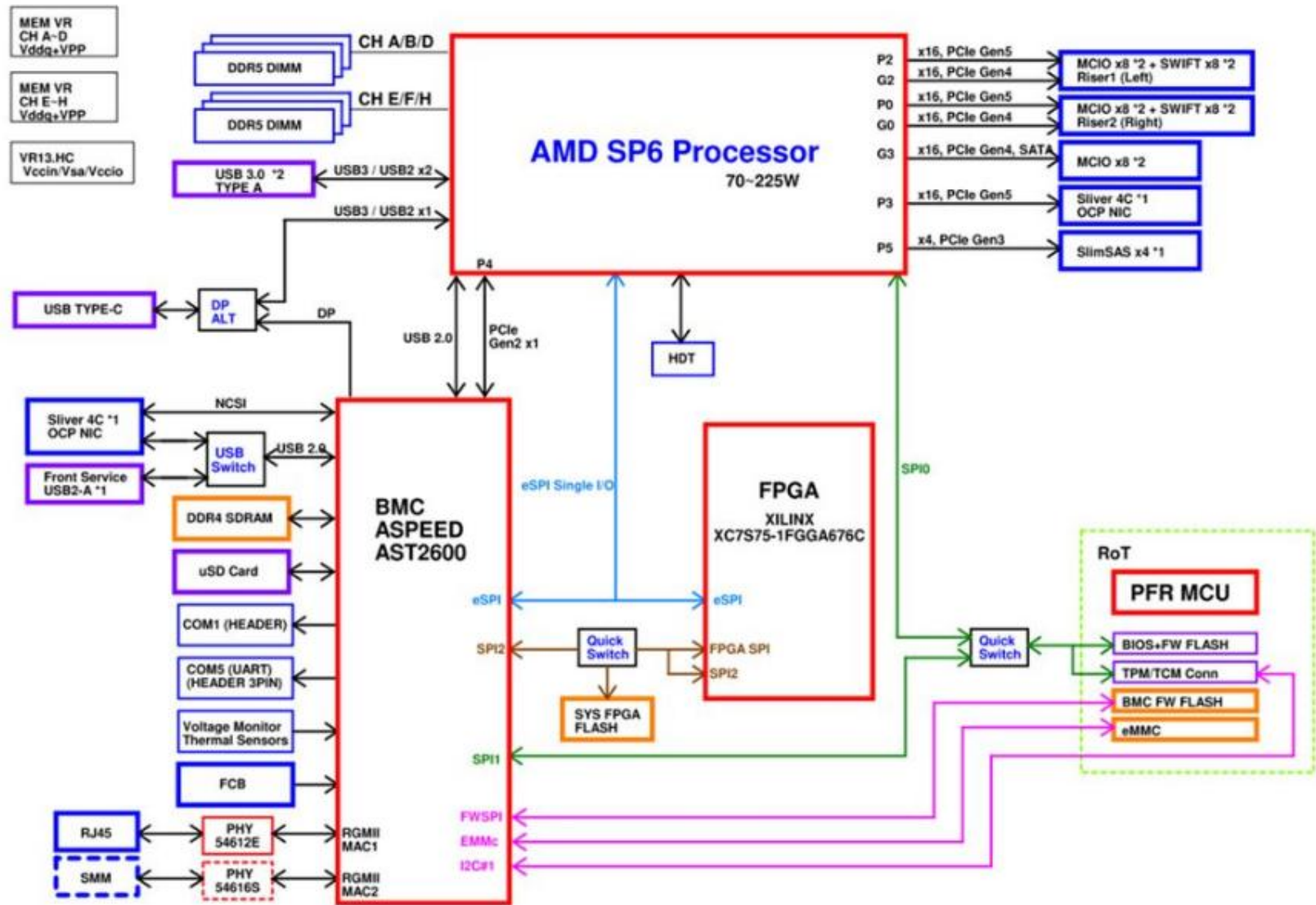
Block diagram, mounting options, drive bay configuration, and parts installation

System board block diagram

Mounting options

The SE455 V3 has the following mounting options:

1000 mm rack mount

600 mm rack mount

Two-post rack mount

Mounting options

1000 mm rack mount

The SE455 V3 is supported in a standard 19-inch four-post rack cabinet.

Mounting options

600 mm rack mount

The SE455 V3 supports mounting in a four-post short-depth rack.

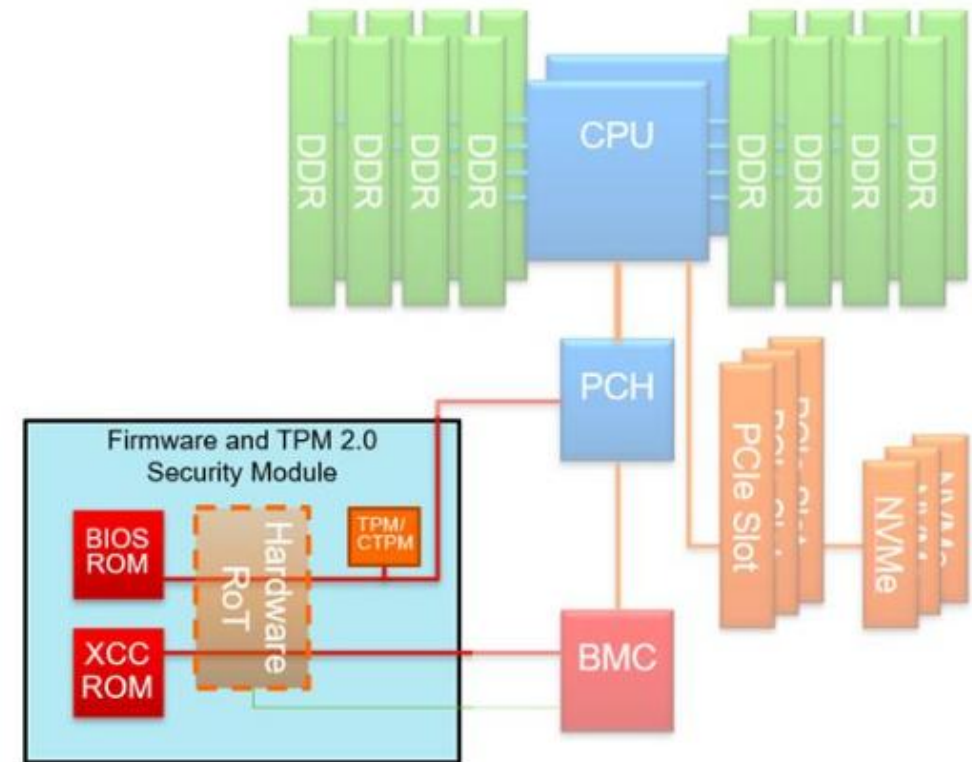# Mounting options

Two-post rack mount

The SE455 V3 is also supported in a two-post rack.
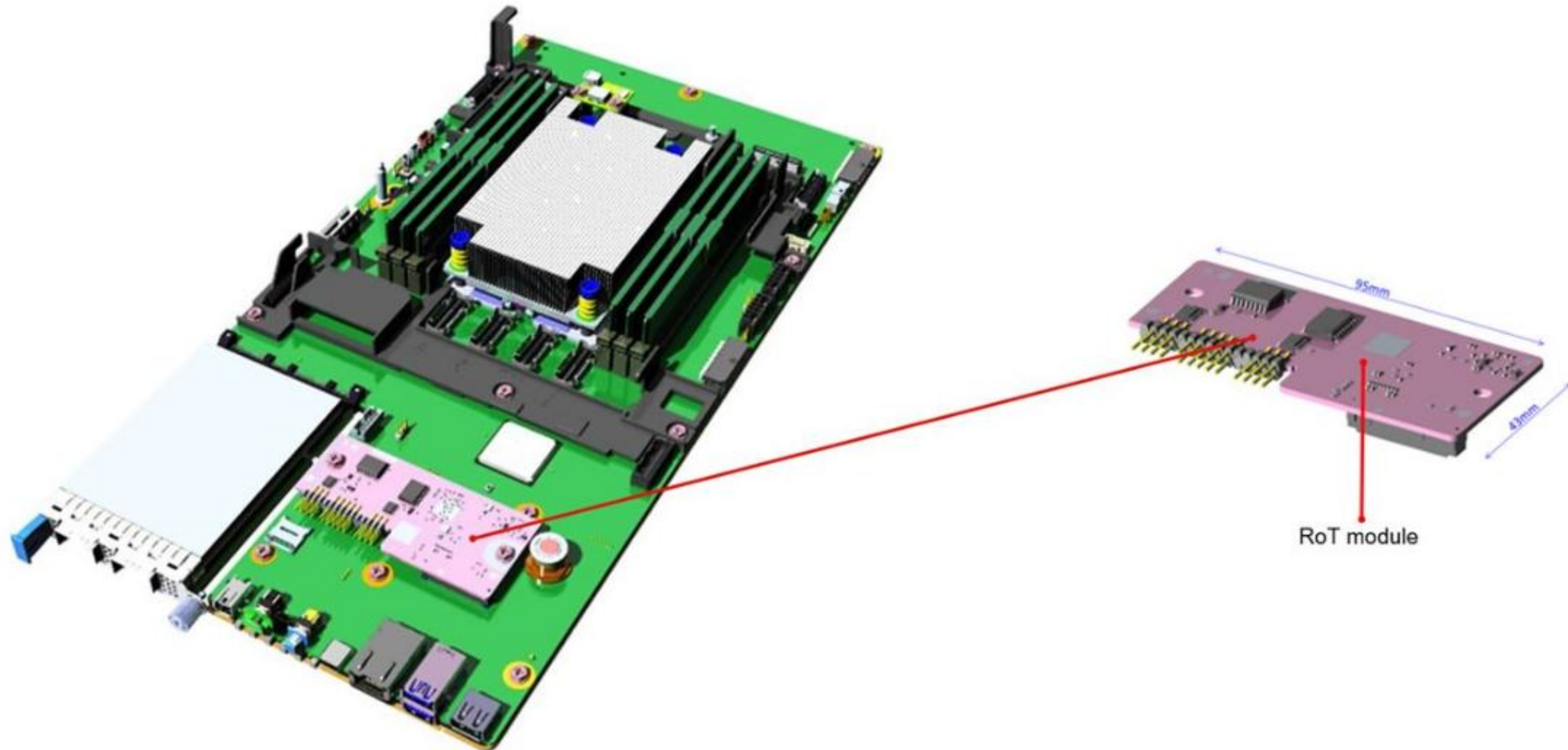
Firmware and TPM 2.0 security module

The firmware and TPM 2.0 security module is a mezzanine card containing a Trusted Platform Module (TPM), a 32 MB UEFI SPI flash chip, a 4 MB XCC SPI flash chip, and 16 GB XCC eMMC storage. The module is necessary for a system boot.

This module performs power-on time protection and validation of core boot elements for both XCC firmware and UEFI/BIOS firmware in a cryptographically secure fashion.
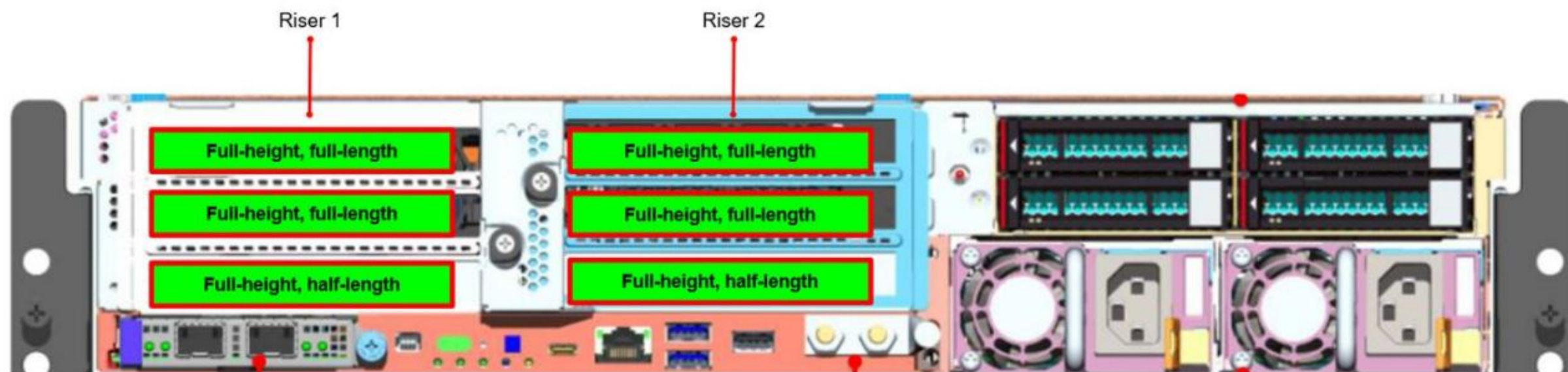

Note: The Aspeed AST2600 is the main BMC chipset, and it's placed on a planar. While its firmware (XCC) is stored separately in a 4 MB XCC SPI flash chip, the flash chip is now located on the firmware and TPM 2.0 security module.
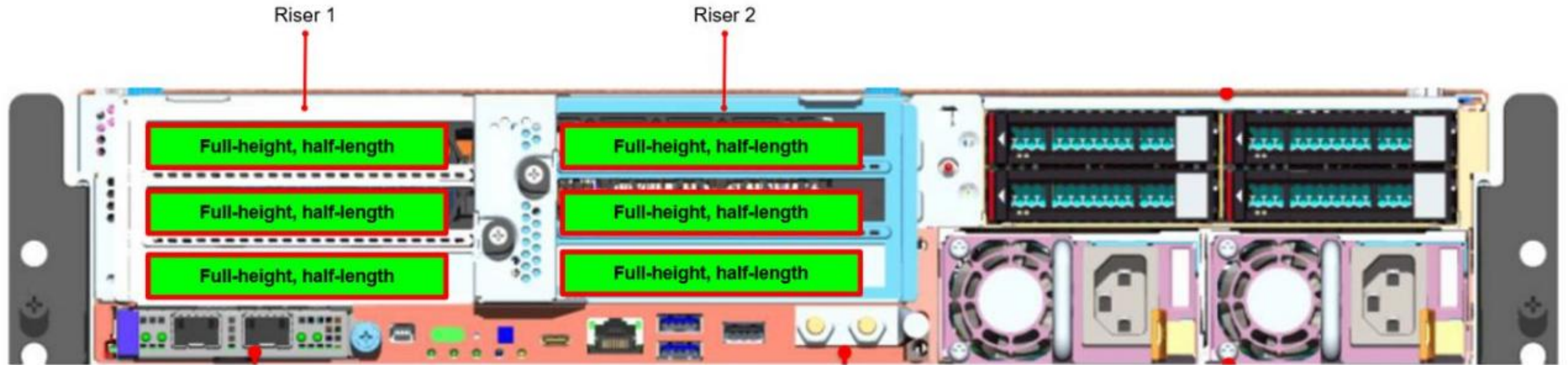
Firmware and TPM 2.0 security module location

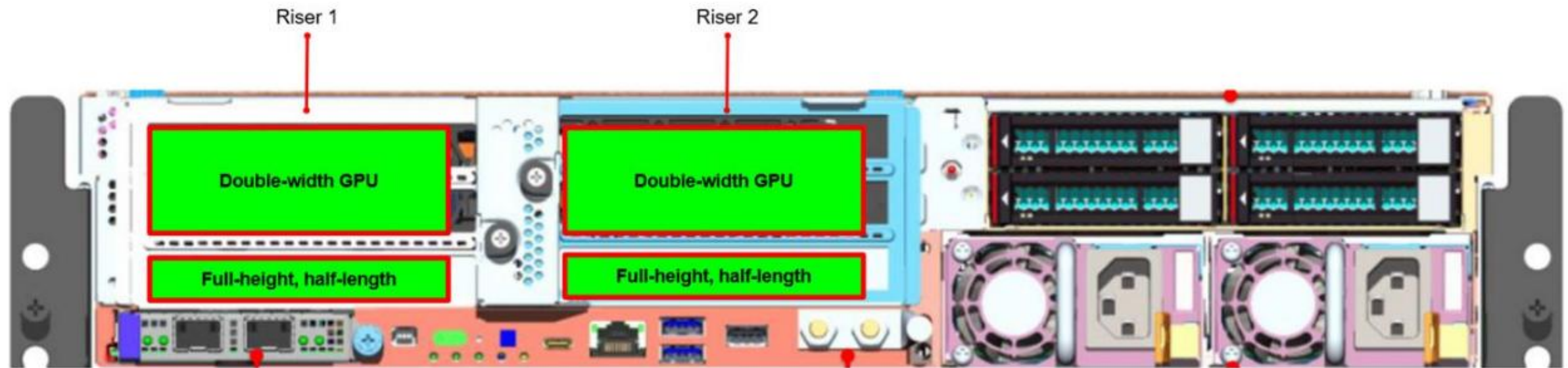RoT module

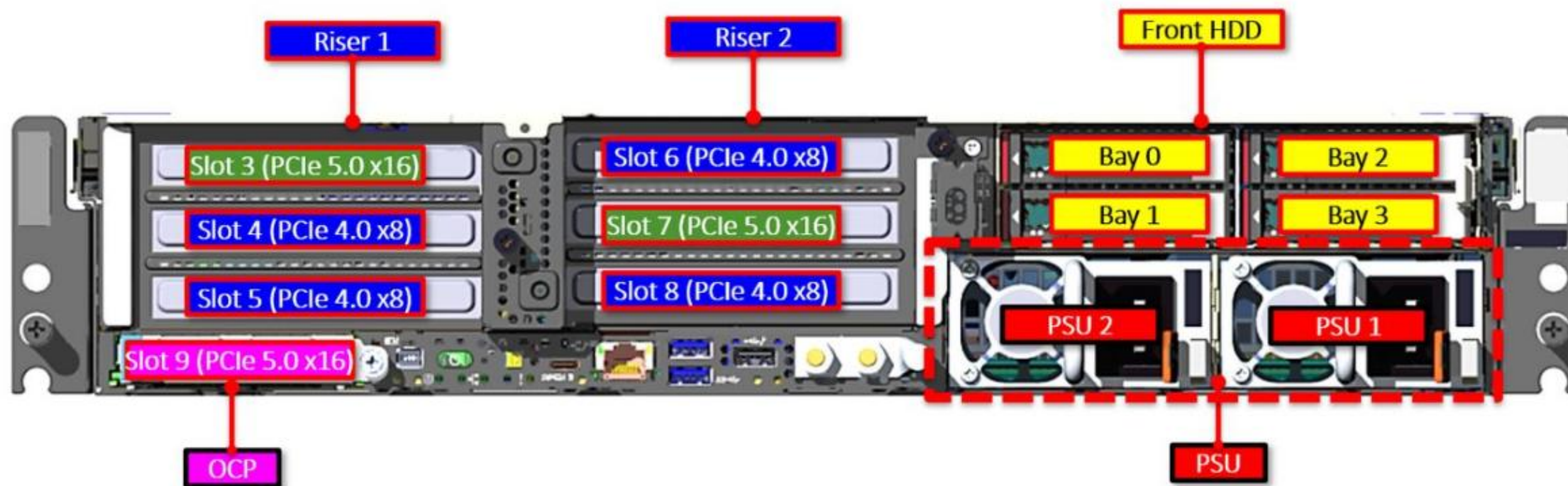# PCIe slot configuration – 1U heat sink

PCIe slot configuration – 2U heat sink

PCIe slot configuration – double-width GPU
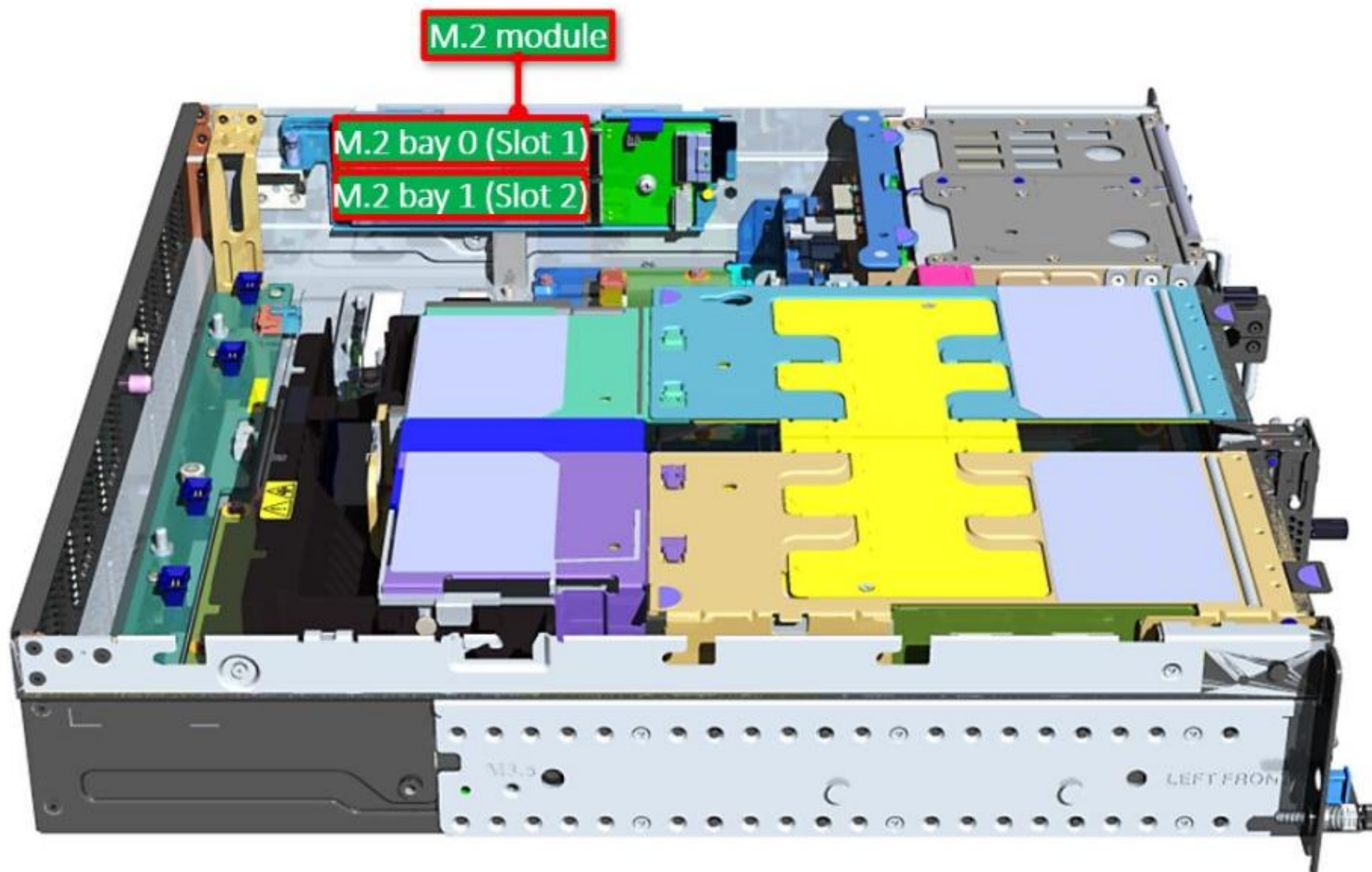
This configuration only supports the 1U heat sink.
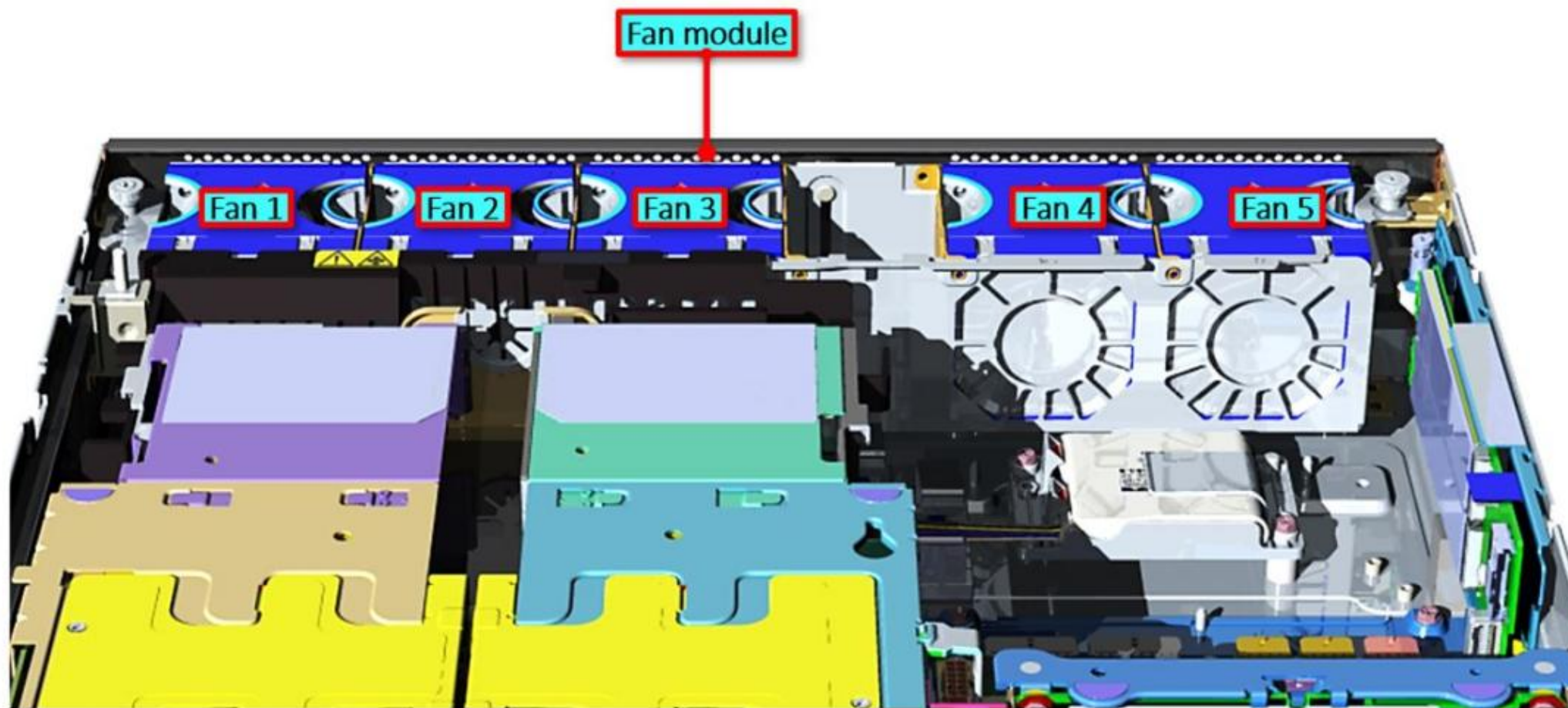
PCIe slot and drive numbering

System configurations and diagrams

2.5-inch internal drive bays

M.2 drive sequence

M.2 module

M.2 bay 0 (Slot 1)

M.2 bay 1 (Slot 2)

Fan sequence

Parts installation and removal

- Refer to the parts removal and installation videos on the course landing page.

- Refer to the SE455 V3 user guide on <u>Lenovo Docs</u> for detailed installation steps, including:
  - Installation guidelines
  - Memory module installation rules and order
  - Power on and power off the server
  - Configuration guide
  - Dust filter replacement
  - Power adapter replacement
  - Node component replacement
  - Complete parts replacement
  - Mounting options

Lenovo