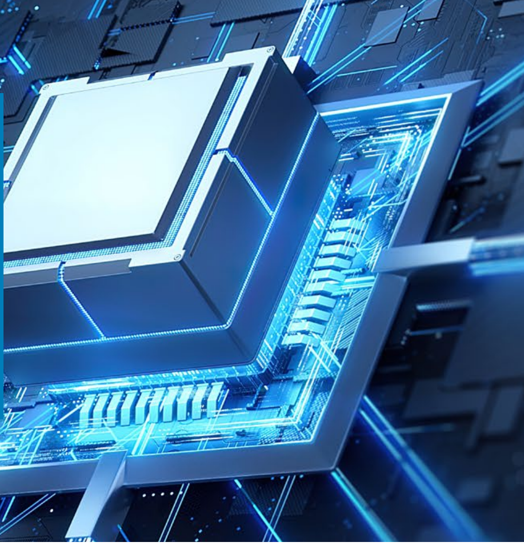

Flex Modular Compute Platform for AI High-Density Workloads

The Flex Modular Compute Platform provides a customizable, open standard-based server system that is designed for the most challenging AI-enabled and High-Performance Computing (HPC) applications. This platform complies with the Open Compute Project (OCP) DC-MHS 2.0 specification and features a Host Processor Module (HPM) that supports up to two Intel® Xeon® 6900 series processors.

Keep it cool

The Flex Modular Compute Platform integrates JetCool's SmartPlate™ cold plates to provide superior cooling performance. JetCool's patented microconvective cooling® technology extends the value of single-phase direct-to-chip liquid cooling solutions and provides more than enough headroom to accommodate the most demanding AI workloads. Key benefits include:

- Superior cooling performance at up to 1200W per Host Processor Module (HPM)
- Decrease in system fan speeds to reduce energy usage up to 4kW per rack
- Improve processor efficiency and lifetime by maintaining optimal operational temperatures
- Future-proof your investment by supporting next-generation processors with SmartPlate cold plates that can cool up to 1,500W per chip

Maximum versatility

The Flex Modular Compute Platform features an innovative I/O expansion design that provides front access to the maximum number of PCIe 5.0 lanes from the host processors. This flexible and customizable platform features support for up to nine add-in cards, including:

- Front-access PCIe expansion slots that can support up to two double-wide GPU slots and two add-in cards (AIC), or a high-density configuration that supports up to six full-height half-length (FHHL) AICs.
- Front-access for two FHHL PCIe 5.0 x16 expansion slots in a butterfly configuration
- A OCP 3.0 mezzanine card (PCIe 5.0 x16)

This platform also offers versatility with support for HPMs and Add-in Cards that comply with open standards-based specifications, including:

- OCP 2OU form factor enclosure
- Host Processor Module (HPM) design that complies with DC-MHS 2.0
- Add-in network card slot that complies with OCP NIC 3.0
- Flex Secure Module provides system management functions and complies with DC-SCM 2.0

Specifications

Form Factor

- 2OU Orv3, rack-mount with front I/O
- OCP DC-MHS 2.0 specification compliant
- Rack-level power via 48v busbar
- Dimensions: 537.0(W) x 92.7(H) x 802.7(D) mm

Host Processor Module (HPM)

- Supports up to two Intel® Xeon® 9600 series
- Socket BR (LGA-7529)
- Supports up to 500W
- Supports JetCool® SmartPlate™ liquid cooling

Memory

- 24x DDR5 DIMMs, 12 channel per processor
- DDR5: ECC RDIMM, 3DS ECC RDIMM, up to 6400MTs 1DPC
- MCR DIMM: Up to 8800 1DPC (based on processor support)

Storage

- Storage
- Eight E3.S solid state drives (SSD)
- Front-access 2.5” hot-swap disks
- Internal: 1 x M.2 Slot (M-Key, Type-2280, NVMe, PCIe 5.0 x 4)

Front I/O Expansion

- 1x OCP 3.0 mezzanine slots (PCIe 5.0 x 16)
- 2x Full-Height Half-Length (FHHL) slots (PCIe 5.0 x16)
- Left and Right riser cages support:
- Option 1: 3x Full-Height Half-Length (FHHL) slots (PCIe 5.0 x16)
- Option 2: 1x Full-Height with 3/4 Length slot (PCIe 5.0 x16) for double-wide
- GPU cards, and 1x FHHL slot (PCIe 5.0 x16)

System Management

- Flex Secure Control Module
- Compliant with DC-SCM 2.0
- Aspeed AST2600 BMC, 512MB DDR4 SDRAM
- Supports Infineon SLB9672 TPM controller
- RoT function based on Aspeed AST1060 BMC
- Support for Intel Platform Firmware Resiliency (PFR) 4.0

Power

- Rear-mount 48V busbar connector

Cooling

- Supports JetCool SmartPlate cold plates for processors
- JetCool microconvective cooling® technology
- Single-phase direct-to-chip design
- Dual processor liquid cooling loops
- Four rear-access fan modules
- 8056 system fans

Flex (Reg. No. 199002645H) is the manufacturing partner of choice that helps a diverse customer base design and build products that improve the world. Through the collective strength of a global workforce across 30 countries and responsible, sustainable operations, Flex delivers technology innovation, supply chain, and manufacturing solutions to various industries and end markets.

For more information, visit **flex.com.**