intel®

Intel® Server System D40AMP Family
Featuring 3rd Generation Intel® Xeon® Scalable Processors

Data Intensive Solution for Software-defined Infrastructure, Virtual Desktop Infrastructure and Hyperconverged Infrastructure Workloads

Innovative HCI Platform

Intel® Server System D40AMP Family delivers innovation to address your HCI compute and storage needs with the 3rd Gen Intel® Xeon® Scalable processor, enabling outstanding storage scalability without performance degradation.

Unique Features for SDI, VDI, and HCI

- Features the latest processor innovation with 3rd Gen Intel® Xeon® Scalable processors in dual-socket compute modules. Additionally, Intel® Optane™ persistent memory 200 series enables greater memory capacity versus DRAM only.

- Innovative 3U design places ultra-high-capacity storage in the top 1U to improve airflow and to enable higher performing processors in the bottom 2U for no-compromise CPU performance, enabling an HCI platform that delivers breakthrough compute performance and storage capacity. With up to four modules per server, and double the cores of a typical 2U, 4-node configuration for outstanding compute density and headroom. The chassis supports up to four power supplies, which can be configured to provide 2+1 or 2+2 redundancy for greater resiliency.

- High-performance NVMe storage provides high-speed, easily scalable storage capacity. Available in U.2 or E1.L form factors.

- Delivers ultra-fast I/O through full PCIe 4.0 support. Rapidly moves data across nodes with high-speed networking options for fabric or ethernet PCIe cards. Supports up to 200 Gb network cards.

- Advanced, hardware-enhanced security features better protect your data, applications, and infrastructure.

- Certified for industry-leading HCI solutions—such as VMware vSAN and Microsoft Azure Stack HCI—the Intel® Server System D40AMP Family is your fast path to HCI, private and hybrid cloud deployments.

## Unleash the Power of Confidential Computing

For decades, sensitive data was encrypted to protect it when transmitted or stored. But data was still exposed and vulnerable during active processing.

Intel® Software Guard Extensions (Intel® SGX) closes that gap by placing sensitive data and code in isolated, secure, processor-enforced enclaves to help protect sensitive data even if a system's software layers become compromised.

Intel SGX® is the most tested, researched, and battle-tested data center Trusted Execution Environment, with the smallest available attack surface.

Confidential computing with Intel® SGX enables organizations to discover insights not possible before when sensitive data was siloed, and to move sensitive workloads to the cloud with confidence.

Fortanix developed the SDKMS (Self-Defending Key Management Service)—a secure key management platform—using Intel® SGX protection. The platform provides significantly greater data protection for both new or existing applications across public, private, and multi-cloud environments, as well as on-premises deployments.
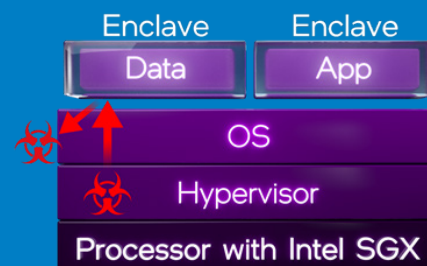
Accelerating Time to Market with Innovative Data Center Solutions

The Intel® Server System D40AMP Family joins as a high-performance member of Intel® Data Center Sytems for HCI. These fully validated, unbranded server systems include Intel's latest data center technology— already optimized to work better together—allowing partners to accelerate time to market with reliable data center solutions. The process of configuring and validating the components of solutions that are tuned to meet specific customer requirements is a complex and resource-intensive process. Intel® Data Center Systems for HCI based on the Intel® Server System D40AMP Family reduce this complexity, making it easier to build innovative server solutions that can support the demands of today's data center workloads.
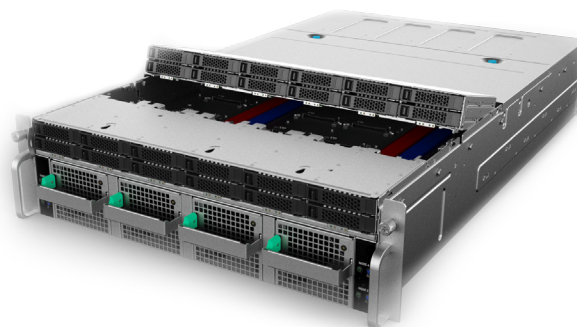
Highly Integrated, High Density Compute Solution

The Intel® Server System D40AMP Family can be configured to support a wide range of memory, storage, and I/O options. Solutions are configured using 3rd Gen Intel® Xeon® Scalable processors, Intel® Server System D40AMP Modules, and Intel® Server Chassis VP3000. The Intel® Server Chassis VP3000 family supports chassis-based storage using 24x U.2 or 32x E1.L NVMe drives. Additionally, both chassis configurations support up to 4 PSUs allowing configurations with no redundancy— 2+1 or 2+2 redundant configurations further extending the benefits of Intel® Server System D40AMP Family.
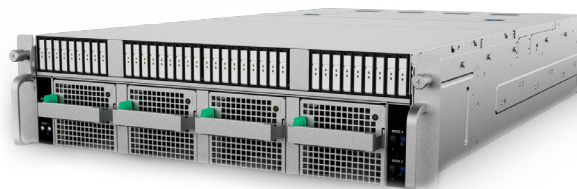
Intel® Server System D40AMP Compute Module	
Component	1U Half-Width Compute Module
CPU	2S 3rd Gen Intel® Xeon® Scalable processors up to 205W TDP
Memory	DDR4 3200 MT/s 16x DIMMS, 8x Intel® Optane™ persistent memory per module; Supports 8GB to 128GB DIMM options, number and capacity configurable
Module Storage	2x M.2 SATA/NVMe SSDs 80 or 110mm
DCB Configuration	3U/4N air-cooled
I/O	Integrated 10Gbase-T RJ45 & 2 x16 PCIe 4.0 low-profile slots
Debug Support	Dedicated port for VGA, serial, & 2 USB 2.0 port connectivity

Intel® Server Chassis VP3000 Options		
Component	2U Front I/O standard-width air-cooled chassis with included rail-kit	2U Front I/O standard-width air-cooled chassis with included rail-kit
Chassis Storage	24x U.2 NVMe 2.5" drives with direct access PCIe connections	32x E1.L NVMe drives with direct access PCIe connections
Supported Configurations	4x 1U Half-Width Compute Modules	4x 1U Half-Width Compute Modules
Cooling	4x 80mm fans & 4x 40mm fans	4x 80mm fans & 4x 40mm fans
Power Supplies	Up to 4x hot-swap CRPS 2100W (Platinum) PSUs	Up to 4x hot-swap CRPS 2100W (Platinum) PSUs

A Key Member of the Intel® Server System Family Portfolio

The Intel Datacenter Solutions Group has created a portfolio of Intel® Server Systems to handle all your data center and workload requirements. Combined, these servers can run everything from entry-level tasks to your most compute-intensive and data-centric workloads.

Intel® Server Systems can be configured to order to meet your specific needs. You can learn more about these systems in the portfolio by visiting: intel.com/serverproducts.

Enterprise-Class Server Management

Intel® Server Systems provide consistent, enterprise-grade server management across all platforms to simplify deployment, monitoring, updating and debugging.

The consistent interface, tools and utilities simplify and accelerate all stages of the server lifecycle—from build and customize to deployment, to multi-server management, to single server debug and maintenance.

Deploy with Confidence with Intel Quality, Reliability, Service and Support

Intel servers aren't just packed with innovation—they all come with Intel's highly rated, comprehensive services and support package, delivering differentiating value to every stage of the server lifecycle—from pre-purchase and deployment to operations, management and support.

You can take advantage of Intel's proven support and service, including a 3-year warranty (optional 5-year) and global technical support.

Intel® Server Systems are also easy to deploy and operate, with comprehensive documentation for integration, configuration and management. All Intel Server Systems are fully integrated systems with options of configure-to-order CPU, memory, storage, and more.

Additional Resources

Detailed SKU configurations can be found at: https://www.intel.com/content/www/us/en/products/servers/

For more information on Intel® Server Products visit: intel.com/serverproducts

For more information on The Intel Server System D40AMP Family visit: www.intel.com/server-system-D40AMP

Marketing Resources: Access a library of marketing assets by visiting the DSG Marketing Asset Library. Visit https://servermarketinglibrary.intel.com/

Reduce Risk of Counterfeit Parts with Intel® Transparent Supply Chain

Counterfeit electronic parts are a growing security issue across all organizations, and concerns have grown as supply chains have become increasingly complex, multi-layered and global.

Current supply chain practices start with trusting the source, but processes are limited for screening out counterfeit components, particularly for products containing many subsystems.

Intel® Transparent Supply Chain helps partners and customers verify the authenticity and firmware version of servers and their components, through a set of tools, policies, and procedures implemented on the factory floor at server manufacturers.

This industry-leading approach helps:

- Provide component-level traceability and visibility
- Detect tampering of components and configuration state between stops
- Deliver fleet-level insights across suppliers

These and other safeguards combine to increase assurance and trust that the Intel servers you're purchasing and deploying are free of counterfeit components that could compromise your business or customers.

Intel® Server System D40AMP Modules and Chassis SKUs		
Product Code	**MM**	**Description**
D40AMP1SB	99AH9K	Intel® Server Board D40AMP
D40AMP1MHCPAC	99AH9L	Intel® Compute Module D40AMP 1U Half-Width Air-Cooled
VP3U2HAC21W0	99AJLT	Intel® Server Chassis VP3000 Half-Width Configuration for U.2 Air-Cooled
VP3E1HAC21W0	99AJLN	Intel® Server Chassis VP3000 Half-Width Configuration for E1.L Air-Cooled

Intel® Server System D40AMP Accessories and Spares SKUs		
Product Code	**MM**	**Description**
VPXX40MMFAN	99AJLM	Intel® Server Chassis VP3000 40mm Fan
VPXX80MMFAN	99AJLL	Intel® Server Chassis VP3000 80mm Fan
VP3U2HSBASSMBLF	99AJLJ	Intel® Server Chassis VP3000 U.2 Hot Swap Backplane Assembly Front
VP3MPDBASSMBL	99AJLG	Intel® Server Chassis VP3000 Main Power Board Assembly
VP3DPDBASSMBL	99AJLF	Intel® Server Chassis VP3000 Daughter Power Board Assembly
VP3E1LMPASSMBL	99AJLD	Intel® Server Chassis VP3000 E1.L Midplane Assembly
VPXXRAILKIT	99AJJ8	Intel® Server Chassis VP3000 External Rail Kit

Intel® Server System D40AMP Reused Accessories and Spares SKUs		
Product Code	**MM**	**Description**
AXXCONNTDBG	999D47	Intel® Compute Module Walker Pass Multi-connector debug dongle
AXXFC1UBLANK	999D49	1U Compute Module Blank (codenamed Optimus Beach)
FCXX2100CRPS	999D4L	Intel® Server Chassis (codenamed Optimus Beach) 2100W PSU
TNP1UCRRISER	99AF4H	1U PCIe D50TNP riser card for D50TNP1MHCRAC and D50TNP1MHCRLC
TNP1UHSF	99A2F9	D50TNP 1U air-cooled heat sink front, Single
TNP1UHSB	99A2FA	D50TNP 1U air-cooled heat sink back, Single
TNPM2HS	99A2GA	D50TNP M.2 heat sink air-cooled assembly
TNPDMMBLNK	99A5ZC	D50TNP DIMM Blank
TNPRLRBLNK	99AF4C	D50TNP Ruler Blank

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