



INTEL® PRODUCT QUICK REFERENCE MATRIX

Q1, 2017

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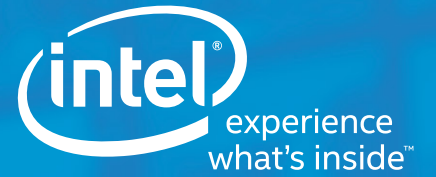
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INTEL® TECHNOLOGY PROVIDER



INTEL® TECHNOLOGY PROVIDER

Intel® Technology Provider is a global membership program designed for businesses that resell or recommend Intel technology.

INTEL® TECHNOLOGY PROVIDER

INTEL® TECHNOLOGY PROVIDER

Intel® Technology Provider provides support to keep your business running smoothly, knowledge and expertise to provide an edge and rewards to grow your business.

ONLINE RESOURCES

Access a number of online resources designed to help provide the right solutions for your customers and grow your business.

ONLINE TRAINING

Access a wide range of online courses that include in-depth technical, business and technology specific training. Earn credits as you learn more.

Your Solutions. Our Technology. Smarter Together.

Whether selling to businesses or consumers, Intel® Technology Providers get the competitive advantage. Access your many benefits as you progress through the program, receiving the support, expertise, and recognition you need to succeed in a fast-moving global marketplace.

SUPPORT	EXPERTISE	RECOGNITION
Build your business with online help, dedicated account management, and marketing materials.	Become a trusted advisor to your customers with training, events, newsletters, and online guides.	Be recognized for the business you do with Intel. Earn points on purchases to spend on rewards and access promotions and membership materials.



Helping You Succeed, with These Partner Benefits:

ACCOUNT MANAGEMENT	POINTS	TRAINING	EVENTS	SALES & MARKETING TOOLS	PRIORITY TECHNICAL SUPPORT
Dedicated account managers for Platinum partners, who can help drive sales and solutions.	Greater performance brings greater rewards. All partners can earn points while Gold and Platinum partners can spend points on Intel® technology, events and more.	Access to the latest online and face-to-face training courses.	Invitations to annual partner-only events offering the latest product information and the opportunity to network with Intel executives.	Targeted sales and marketing solutions to boost sales and grow your business.	Priority support for Platinum partners via chat, email, or phone, and advanced warranty service.

For more information, visit www.intel.com/technologyprovider

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INTEL® CHANNEL PRODUCTS GUIDE – SMARTPHONE APP

Intel® Channel Products Guide – Smartphone App

The Intel® Channel Products Guide smartphone app provides specification data on Channel products to Intel sales, resellers, and end customers.

- An easy and simple smartphone application with product features and comparisons of boxed desktop processors, desktop boards, and Solid State Drives.
- Find an Intel® Technology Provider based on your location or search criteria.
- Available on iPhone®, iPad®, and Android® mobile devices.
- Six languages supported (Spanish, Brazil Portuguese, Simplified Chinese, Korean, and Russian).
- Only boxed products sold in the Channel.
- Links to compatibility data for processors, ARK, and marketing content.
- Includes compare and locate features.

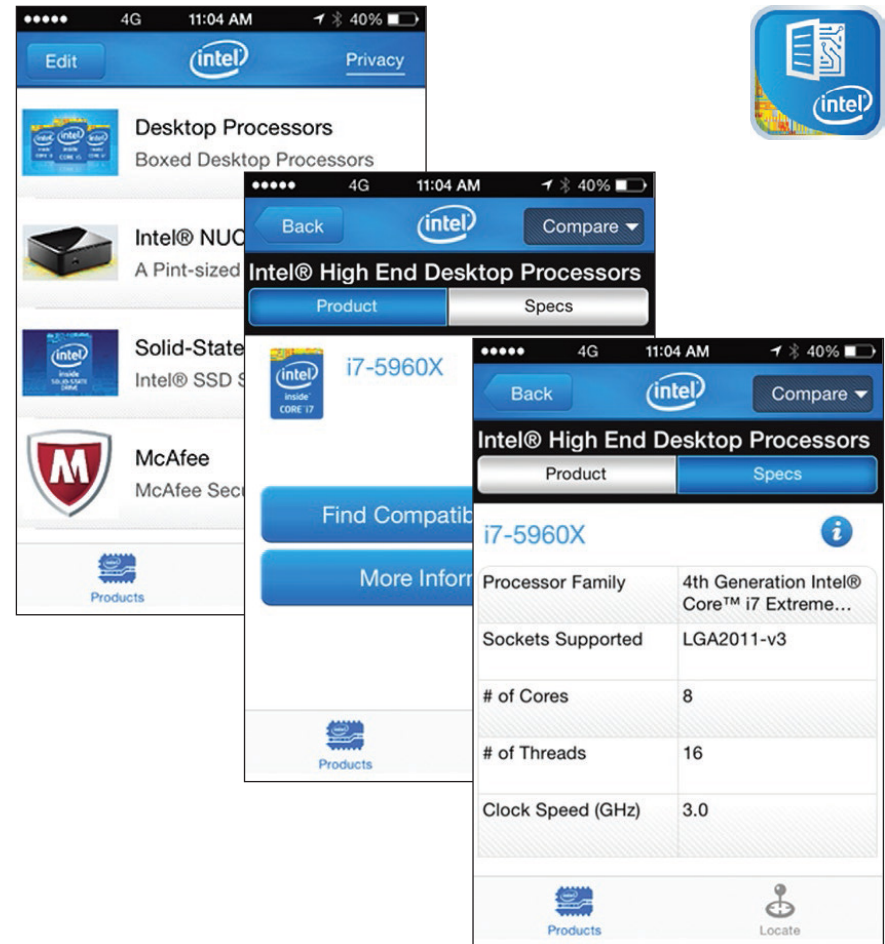
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Google Play*:

<https://play.google.com/store/apps/details?id=com.intel.masterbrandapp>



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INTEL® PC AND TABLET ADVISOR TOOL

Intel® PC and Tablet Advisor Tool

Simplify your purchase decisions with the Intel® PC and Tablet Advisor. Answer a few questions about your needs and receive time-saving, tailored device recommendations.



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INTEL® TECHNOLOGY PROVIDER TRAINING

Access the Latest Online Courses

Access the latest online courses designed to help you grow your business. Complete training on specific products and technologies, focus on developing further sales and marketing expertise on Intel products and technologies. Track your learning progress and earn points as you grow your knowledge. Visit <http://channeltraining.intel.com>



Processors



Boards



Internet of Things (IoT)



2 in 1



Tablets



Other Mobile Devices



Desktop-PC



Server



Storage/Solid State Devices



SW and Services



Networking

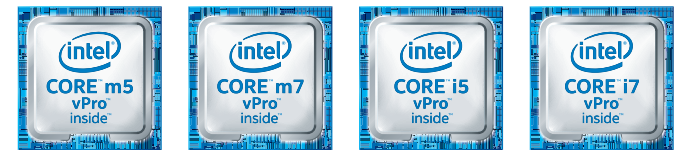


INTEL® VPRO™ TECHNOLOGY SOLUTION



THE ADVANTAGES OF INTEL® VPRO PLATFORMS FOR BUSINESS OF ALL SIZES

The 6th generation Intel® Core™ processors are transforming the way people work. And there's a PC design for every type of user. Choose from all in ones, convertibles, detachables, Ultrabook™ devices, 2 in 1s, ultrathin clamshells, and tiny desktop PCs. Each powered by these amazing new 14 nm processors. You can also get the latest razor-thin, ultramobile devices with balanced performance and battery life provided by Intel® Core™ M vPro™ processors.¹



53%

53% reduction²

Average downtime per PC per month.



55%

55% reduction³

Average number of IT desk-side visits per month.



1.9%

Up to 1.9x increase⁴

Average number of PCs managed per IT technician.

Sales Opportunities

Nearly half (46%) of small businesses are in a managed environment, and drive 62% of small business IT spending⁵.

This is an excellent sales opportunity.

Devices powered by Intel® Core™ vPro™ processors deliver proven value with reduced repair times and improved system availability.

Intel vPro technology is supported by a broad set of ISV management consoles and a wide variety of devices.

Processor
Intel® Core™ i7 and Intel® Core™ i5 vPro™ and Core M vPro Processors

+

Desktop Chipset² OR **Mobile Chipset²**
Intel® Q Series Chipset OR Intel® QM Series Chipset

+

Network
Intel® LAN Controller



For more information, visit www.intel.com/go/vpro

Product and Performance Information

- ¹ Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. Check with your system manufacturer or retailer or learn more at www.intel.com. Visit ark.intel.com or www.intel.com/go/vpro to find eligible SKUs. Availability in different channels may vary.
- ² Based on Managed Service Provider case studies. Case studies performed at Ash Creek Enterprises Inc., Axcell Technologies Inc., Amnet, aCOUPLEofGurus, Progressive Computing, Internet Contrasts, Nemsys, TLC Tech, eWranglers, IT Authorities, Arterian, Speros, Circle Computer Resources, IT Guru, MidAmerica Computer Corp., Do IT Smarter, Sabio Information Technology, STF Consulting, Alvarez Technology Group Inc., outsource IT, mindSHIFT, Base 2 NC, Dempsey Bluevar. <https://msp.intel.com/case-studies>.
- ³ Based on Managed Service Provider case studies. Case studies performed at aCOUPLEofGurus, Nemsys, eWranglers, IT Authorities, Speros, Circle Computer Resources, IT Guru, Do IT Smarter, Alvarez Technology Group Inc., Base 2 NC, Dempsey Bluevar. <https://msp.intel.com/case-studies>.
- ⁴ Based on Managed Service Provider case studies. Case studies performed at aCOUPLEofGurus, Nemsys, TLC Tech, Speros, mindSHIFT. <https://msp.intel.com/case-studies>
- ⁵ Source: AMI-Partners (<http://www.ami-partners.com>) 2013.

For more details on the powerful ROI calculations to show end users the value of moving to Intel® vPro™ technology platforms, visit www.intel.com/cd/channel/distributor/asm-na/eng/446248.htm.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

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INTEL® IOT PLATFORM



INTEL® IOT PLATFORM

Enabling a connected digital lifestyle through devices that are able to connect to the internet securely.

The Intel® IoT Platform is a reference architecture implemented using products and technologies from Intel, along with developers and the ecosystem that seamlessly and securely connect and manage devices, deliver trusted data to the cloud, and deliver value through analytics.

INTEL® IOT PLATFORM INFOGRAPHIC

The Internet of Things (IoT) is at the heart of a powerful technology revolution. The act of connecting devices and systems to each other so that they can share data is the seed of new products, services, and experiences. Today, there are many IoT solutions based on Intel® technology in operation worldwide and the impact has been significant for businesses and consumers.

IOT PRODUCT PORTFOLIO

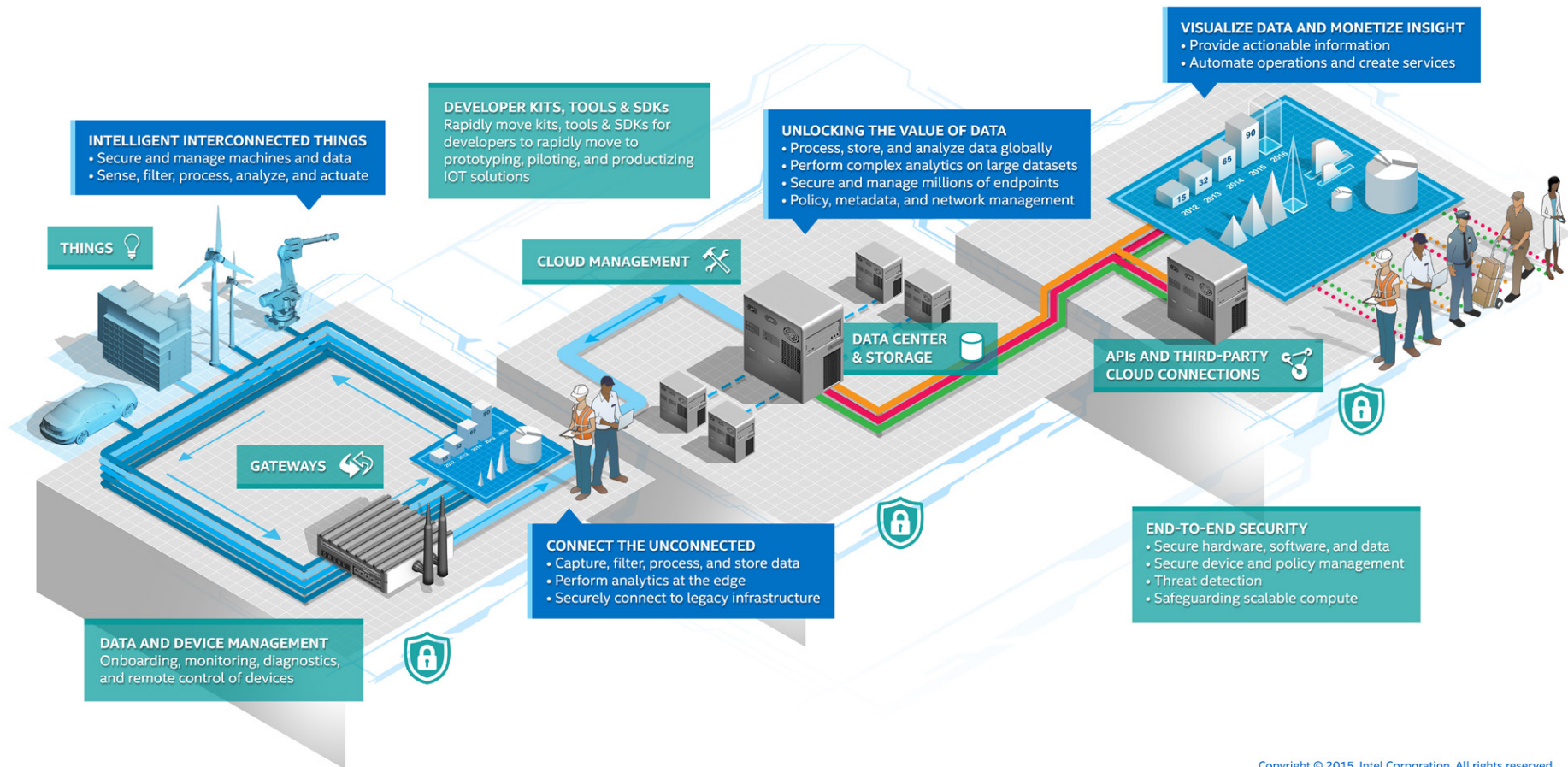
Intel technology is the backbone of proven IoT solutions in smart home, industrial, and mobile applications, as well as for vertical markets, including transportation, healthcare, and retail. It is helping billions of devices talk to each other and share valuable information, protecting sensitive data, and providing critical analytics and API offerings.

IOT SECURITY PORTFOLIO

Intel supports tightly integrated hardware and software security from the edge to the cloud, along with data protection and policy management, delivering trusted data resulting in valuable insights.

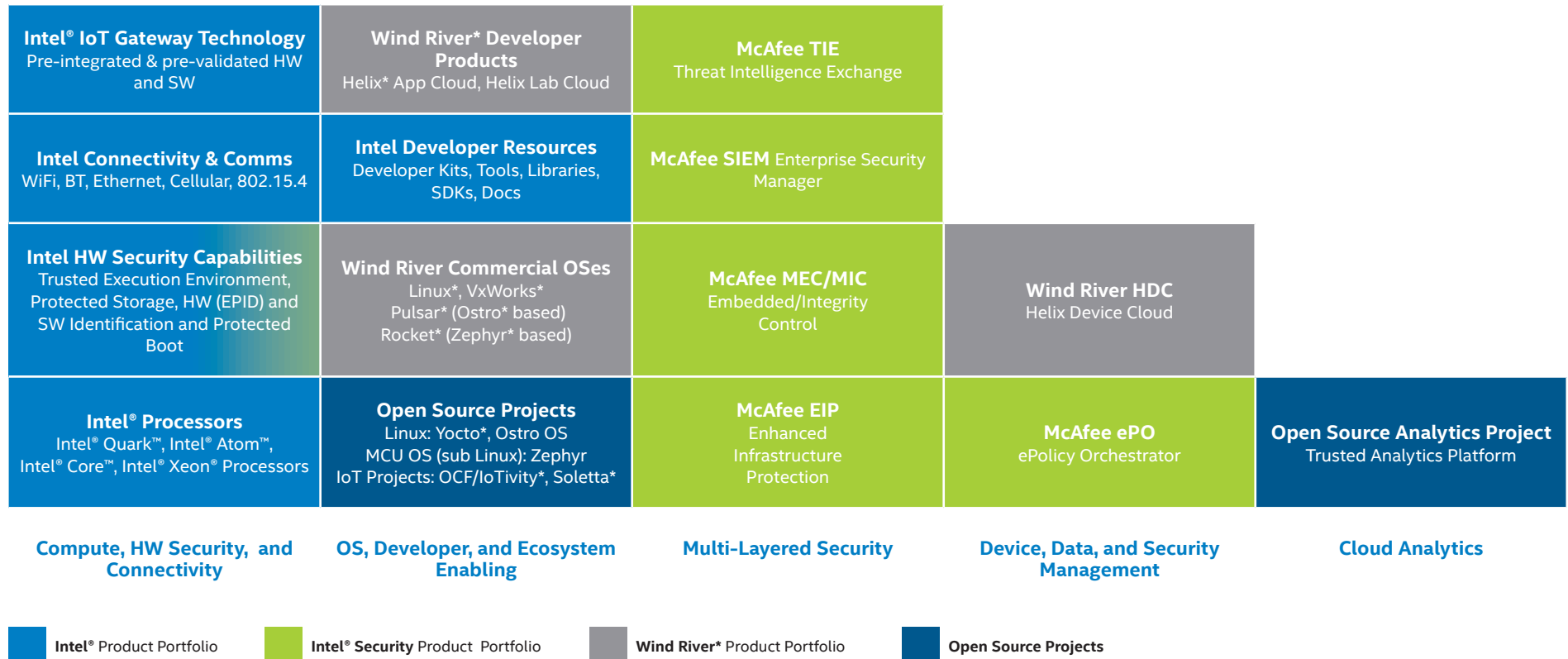
Secure. Scalable. Interoperable.

The Intel® IoT Platform is an end-to-end reference architecture and family of products from Intel, that works with third-party solutions, to provide a foundation for seamlessly and securely connecting devices, delivering trusted data to the cloud, and delivering value through analytics.



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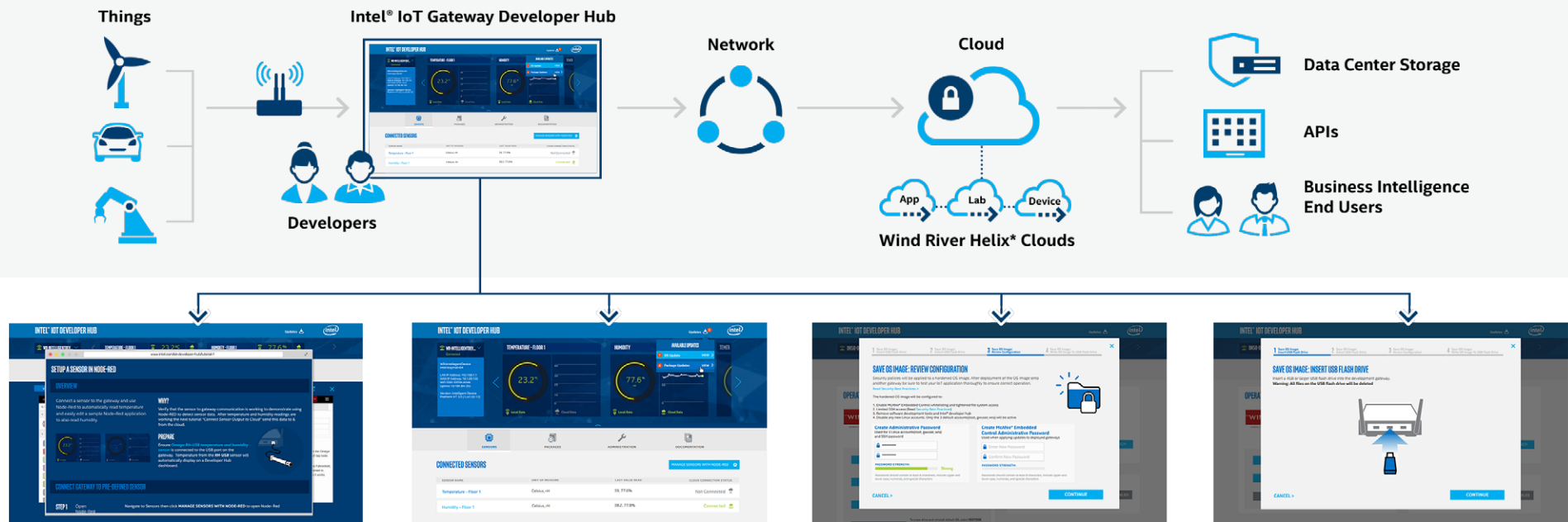
The Intel® IoT Platform is a family of products and technologies, that are reusable building blocks to help provide cost savings and scale applications and services. Customers can scale and build vertical solutions with the large and diverse Intel ecosystem.



Note: Future versions include all the features of prior versions, new features highlighted
 ** Windows* 10 gateway capabilities in planning.
 *Other names and brands may be claimed as the property of others.

¹ Not all features/capabilities shown in this slide is applicable or interoperable with an Ecosystem OS
² Ecosystem partner

INTEL® IOT GATEWAY TECHNOLOGY



EVALUATE

Start at no cost with the Intel® IoT Gateway software suite. Visit inteliotmarketplace.com.

Get started quickly with helpful guides, developer tools, libraries, and tutorials.

PROTOTYPE

At a glance, view all sensors and packages installed on the gateway.

In a matter of minutes, connect a sensor and see data in the cloud with visual programming tools, like Node-RED*, and Intel-provided sensor code samples.

DEVELOP

Customize your build with code samples and packages, or add your own repository with Developer Hub.

Optimize application performance with a choice of Intel® Quark™, Intel® Atom™, or Intel® Core™ processors.

Simulate a production deployment with Wind River Helix Lab Cloud.*

DEPLOY

Harden your image at the click of a button with a preconfigured security profile, including McAfee Embedded Control* whitelisting.

Choose the gateway you need from a robust ecosystem of industry-leading providers.

Accelerate deployment with Wind River Helix Device Cloud.*

Get software at inteliotmarketplace.com and learn more at software.intel.com/iot/hardware/gateways/wind-river

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Other Plug-and-Play Features with this Release

	INTEL® IOT GATEWAY SOFTWARE SUITE	INTEL® IOT GATEWAY PRO SOFTWARE SUITE	INTEL® IOT GATEWAY PRO PILOT SOFTWARE SUITE
Software	Free	\$	\$
McAfee Embedded Control*	McAfee Embedded Control Essential*	McAfee Embedded Control Pro*	McAfee Embedded Control Pro*
Developer Seats	Not required	20	5
Support	Online forum	12 months	6 months (optional purchase)
Intel® IoT Gateway Developer Kit	Yes	Yes	Yes
License Type	Unlimited	Perpetual	6 months

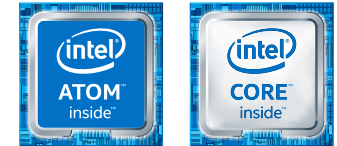
Get software at inteliotmarketplace.com and learn more at software.intel.com/iot/hardware/gateways/wind-river

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THE INTEL® IOT GATEWAY ADVANTAGE

Faster, More Flexible Development of IoT Solutions with the Intel® IoT Gateway Technology

Intel® IoT Gateways give developers the flexibility to create and deploy innovative, cost-effective and secure Internet of Things solutions for a wide array of business segments. Intel IoT Gateways offer a choice of Intel® processors for different application needs, support for multiple operating systems (Wind River and Ubuntu* Linux,* Microsoft Windows* 10, etc.), and robust device management capabilities.



Intel® IoT Gateway

INTEL® IOT GATEWAY TECHNOLOGY

- Strengthen security through silicon-based security capabilities
- Enable near-real-time edge analytics for actionable insight at the edge
- Enable deployment of new applications/services
- Choose from a variety of OS & Processors
 - Wind River* IDP, Flex or Pro
 - Microsoft* Windows* 10 IoT, Core or Enterprise
 - Canonical Snappy Ubuntu* Core
 - Intel® Quark™, Intel® Atom™, Intel® Core™ Processors

3.0 NEW FEATURES

INTEL® IOT GATEWAY TECHNOLOGY WITH WIND RIVER

- Linux 7*, 3.14 Kernel*
- 64bit WRL7
- OS runtime image
- 7 Atom™ BSPs updated, 1 Core™ (ADLink*)
- Wind River Helix* Device Cloud OTA OS update
- Enabled generic script-based mechanism to execute boot time
- Intel® Edge Update Service (app updates)
- Intel® IoT Gateway Developer Hub (Beta)
- Updated McAfee Embedded Control (6.6) and Triage Tool*

The Intel® IoT Platform is an end-to-end reference model and family of products from Intel. An Intel® IoT Gateway Technology is a critical component within this framework. The result of a collaboration with McAfee and Wind River, Intel IoT Gateway Technology connect legacy and new systems, and enable seamless and secure data flow between edge devices and the cloud through pre-integrated, pre-validated hardware and software building blocks. The Wind River Helix Device Cloud* enables devices to securely connect to a centralized console and helps customers aggregate data from the edge, run analytics, and securely update software. The McAfee security suite is extensive, including whitelisting, secure boot, and deep-packet inspection.

The Intel® IoT Gateway Technology gives you the capability and connectivity to get your IoT foundation in place. Intel scalability, security, performance and remote manageability make it the right fit for immediate deployments, while simultaneously future-proofing your IoT roadmap.



**Performance
at the Edge**



**Advanced
Security**



Scalability



Manageability














**Fast, Flexible
Deployment**

* Other names and brands may be claimed as the property of others.

INTEL® SECURITY: IOT PLATFORM

Intel® Security Critical Infrastructure Protection.

Provides comprehensive protection of Critical infrastructure from physical and cyberattacks.

EVENT MANAGEMENT AND THREAT INTELLIGENCE 	 McAfee Security Information and Event Monitoring System (SIEM)	Central security intelligence system for IOT's heterogeneous architecture.	Intel® Security Critical Infrastructure Protection Provides comprehensive protection of critical infrastructure from physical and cyberattacks.
	 McAfee Threat Intelligence Exchange & Data Exchange Layer	Tailors comprehensive threat intelligence from multiple intelligence data sources.	
PRIVATE / PUBLIC CLOUD SECURITY 	 McAfee ePolicy Orchestrator (McAfee ePO)	Security agent that connects with the McAfee security infrastructure for monitoring and managing security of the IoT.	
	 McAfee Next Generation Firewall	Helps detect and block attacks by enforcing security policies at the application, port and protocol levels	
NETWORK SECURITY 	 McAfee Next Generation Firewall		
DEVICE LEVEL SECURITY 	 McAfee Embedded/ Integrity Control (Whitelisting Technology)	Helps block unauthorized applications and changes in IoT devices	
	 Intel Silicon Hardened Foundation	Security capabilities that include Secure Boot, HW Root of Trust and EPID	

For more information, visit www.intel.com/content/www/us/en/internet-of-things/overview.html

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com. Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit <http://www.intel.com/performance>.

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INTEL® UNITE™

SMARTER CONFERENCE ROOMS. SMARTER MEETINGS.

Every minute counts. Today's business world needs smarter meeting spaces—conference rooms that ensure that meetings start on time and that connect workers from any location to improve productivity.

INTEL® UNITE™ SOFTWARE

Intel® Unite™ software powers secure, connected meeting spaces; whether your workers are sitting around the table or halfway around the world, you can get started quickly. This easy-to-use solution improves collaboration for users while simplifying management for IT with powerful Intel technologies.

INTEL® UNITE™ FOR IT MANAGEMENT

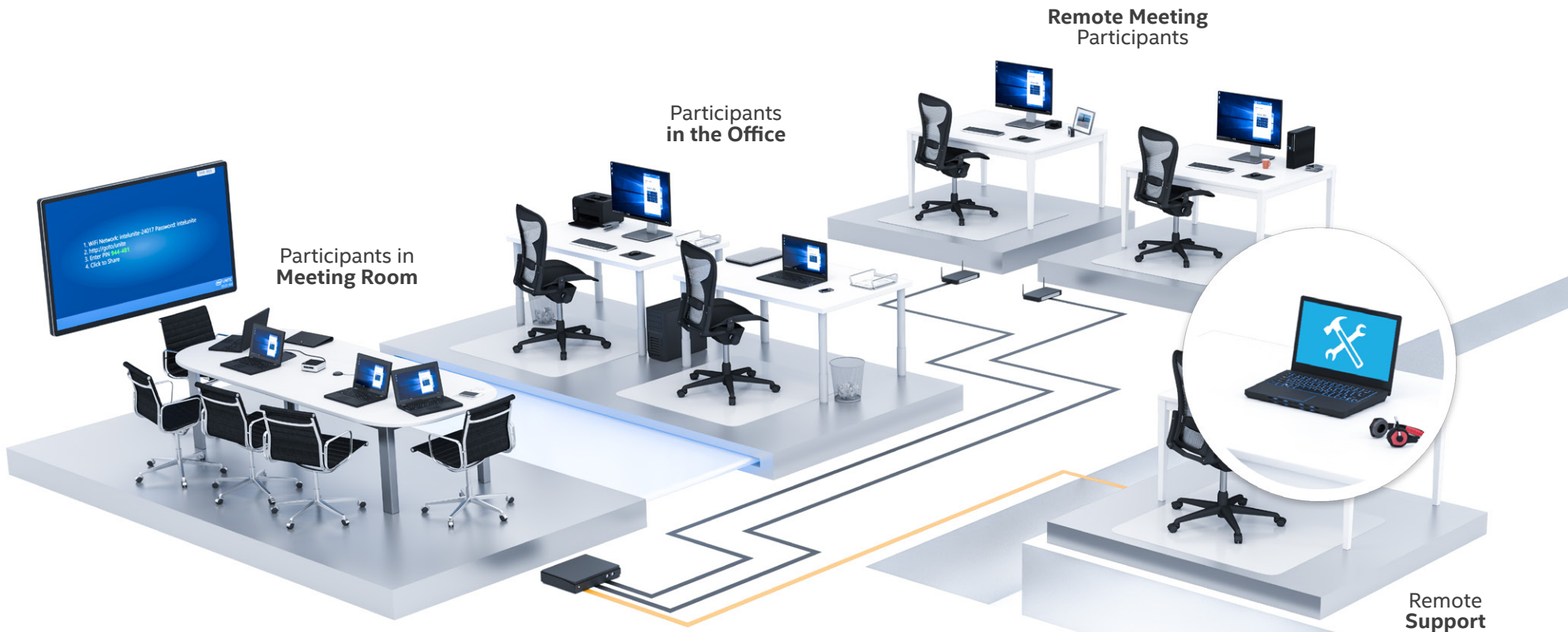
With Intel vPro technology, you can integrate the Intel Unite software into your existing IT infrastructure and leverage the management tools, systems, and policies you already have in place.¹ And by simplifying the infrastructure technologies needed in your conference rooms, you can help reduce costs and improve manageability.



SMARTER MEETINGS

Protect meeting access, secure data and seamlessly connect users from any location with Intel® Unite™. Include the Skype for Business Plugin to extend VOIP audio conferencing capability.





Smart and Connected Meeting Rooms

Fast and Simple Meeting Starts

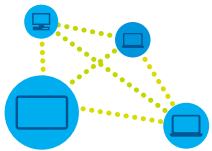
Seamless Collaboration from any Location

Intel® vPro™ Technology for Secure Manageability

INTEL® UNITE™ FOR IT MANAGEMENT

Simplify IT Management

With Intel vPro technology, you can integrate the Intel Unite software into your existing IT infrastructure and leverage the management tools, systems, and policies you already have in place. And by simplifying the infrastructure technologies needed in your conference rooms, you can help reduce costs and improve manageability.



Ditch the Dongle

Technology connects attendees to new or existing displays, projectors, and interactive whiteboards. There's no need to waste time searching for the right adapter or dongle.



Safer Meetings

To improve security, attendees must enter the appropriate rotating PIN code to join the meeting. You can allow guests outside of your network to attend, or let them use the Intel® Unite™ software features without joining your network.



Collaborate in Real Time

Attendees from any location can view, annotate, and share documents—in real time, every time. When the meeting ends, they can distribute content using the built-in file transfer feature.



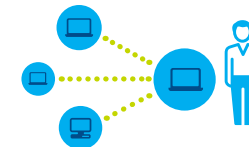
Protected Data

Enterprise-grade security ensures that data is 256-bit Secure Sockets Layer (SSL) encrypted and stays within your corporate network. Data always stays within the virtual walls of your business and isn't dependent on any additional vendor solutions.¹



Share Screens Instantly

With one Intel® Core™ vPro™ processor-based device running the Intel Unite™ application, workers can share screens wirelessly with peer-to-peer sharing.¹



Remote Manageability

With the remote management tools of Intel® vPro™ technology, you can manage all conference room PCs from any location to complete basic tasks, apply patching, or make repairs. And you can do it all with an easy-to-use admin portal.

RESELLER OPPORTUNITIES

Reseller Conferencing Dilemma

Conferencing solutions in SMB are quickly becoming the new battle ground. Resellers have numerous solutions from several vendors to offer their customers.

Resellers will gravitate towards solutions that:

- Have the features that their customer demand
- Are easy to deploy and manage
- Offer them incremental opportunities for margin
- Keep the lines of communications open with their customer
- Offer the best support from the OEM for the entire solution

Reseller Opportunities with Conferencing

Resell

- NUCs and branded systems
- Network infrastructure
- Third Party Peripherals

Plan

- Communication workshops
- Network assessments
- System integration

Enhance

- Customization
- Vertical LOB integration
- Vertical applications

Advantages of adopting Intel® Unite™ for the Reseller

Added margin opportunities

Resell

- Intel® Core™ vPro™ PC with Intel® Unite™
- Third Party Peripherals

Plan

- Conference Consulting Services
- Network Assessment Services

Enhance

- Customization Services
- Service Level Agreements
- Plug-Ins — Skype* for Business², PANACAST, Zoom and MAC



DEPLOY & CONFIGURE

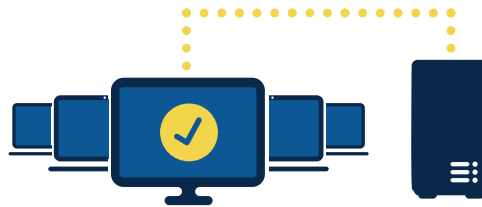
Deploy & Configure Intel® Unite™ with Confidence

Follow these tips to help your customers jumpstart a more collaborative experience in every meeting, whether for a single shared space or throughout their organizations.



Start with Standalone

In addition to adequate memory and storage, hubs will need Intel® vPro™ technology and Windows* 7 with Microsoft* .NET Framework 4 or newer. Clients require Windows* 7 or newer or Mac OS* X 10.9 or newer, plus the Intel® Unite™ app.



Expand to Enterprise

Add a new server or use a compatible existing server to manage connections for enterprise deployment. The server should meet the same memory, storage, and software requirements as the hub, along with having Microsoft* IIS and Microsoft SQL Server* 2008 or newer. The server will also need the Intel® Unite™ app.



Customize for Manageability

IT can enable automatic logins and always-on displays, add the organization's theme with hub customizations and, in standalone environments, keep meetings secure with an 8-character shared key. Use the server's Administration Portal to create and manage users, roles, and account permissions.

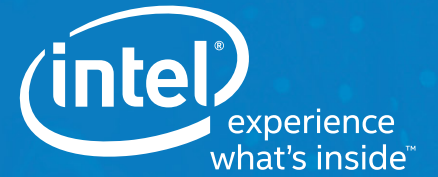
For an exclusive opportunity to download Intel® Unite™ today and learn more visit

<https://www-ssl.intel.com/content/www/us/en/secure/technology-provider/products/software/unite-enables-real-time-collaboration.html>

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² Skype* for Business sold separately.

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INTEL MAKER AND INNOVATOR PRODUCTS



MAKER & INNOVATOR PRODUCTS

Intel's Maker & Innovator family of development tools are designed to make it easy and fun for professionals and makers to design and build computing devices, interactive environments, embedded systems, or practically anything they can imagine.

INTEL® JOULE™ PLATFORM

Push performance to the edge with Intel's highest-performing, yet thumb-sized system-on-module. Ideal for autonomous robots and IoT applications requiring computer vision or edge intelligence, the Intel Joule platform enables rapid prototyping, yet is suitable for volume production.

ARDUINO 101* BOARD

For those just learning about electronics or coding, the Arduino 101* (Genuino 101* outside the US) development board, powered by Intel Curie, is a great place to start.

INTEL® GALILEO BOARD

Intel Galileo Gen 2 provides a platform on which to expand your skills as a developer.

INTEL® EDISON MODULE

Intel Edison – the compact compute module that supports Wi-Fi and Bluetooth* connectivity – makes it easy to take your invention to market.



MEET THE MAKERS



SHUBHAM BANERJEE & INTEL® EDISON TECHNOLOGY

Meet Shubham Banerjee, 8th grader and inventor who built a low-cost braille printer using Intel Edison technology to help give over 200 million blind people an affordable way to read. Shubham says, "I saw the first letters that came out over the braille printer and I felt like I can actually have an impact. The Intel Edison was the only solution".

In between classes and football practice, Shubham Banerjee started his company Braigo Labs Inc. to commercialize his product. Today, braille printers cost over \$2,000. Shubham will sell his for \$500, giving more people access to read.

Check out Shubham's story, and watch more "Meet the Makers".

<https://www.youtube.com/watch?v=b6wHpHAZ1tA>



THUD RUMBLE & INTEL® EDISON TECHNOLOGY

Meet Thud Rumble, DJs, friends, and innovators. Together, they're experimenting with Intel Edison technology to bring the power of computers inside turntables so you can unleash your creativity. Thud Rumble says, "we're just scratching the surface of what Intel Edison can do. The possibilities are endless."

Thud Rumble's goal is to reinvent the turntable as an instrument platform of the future. They're working to reinvent DJ equipment with Intel Edison technology, elevating music as an art form.

Check out Thud Rumble's story, and watch more "Meet the Makers".

<https://www.youtube.com/watch?v=cElz3r6baI0>



SECOND STORY & INTEL® GALILEO TECHNOLOGY

With exciting implications for glowing furniture of the future, interactive studio Second Story has created Lyt, a collaborative drawing canvas that allows users to control ambient lighting using their mobile phones via the new Intel Galileo development board. Intel Galileo allows for everything from touch sensitive lights to mobile phone activated lasers.

<https://www.youtube.com/watch?v=NdSeCB2lnrM>

INTEL® JOULE™ COMPUTE MODULE

PUSH PERFORMANCE TO THE EDGE

Intel's highest-performing system-on-module packs powerful compute capabilities in a thumb-sized, low-power package, enabling developers to create all manner of autonomous robots and IoT applications requiring computer vision or edge processing. The Intel Joule platform enables rapid prototyping, yet is suitable for volume production.



Product Specifications

PHYSICAL

Form Factor	SoM with two high-density 100-pin Hirose connectors and two MIPI CSI connectors
Dimensions	24 mm x 48 mm x 3.5 mm
Connectors	Hirose DF40 series plug (1.5 mm stack height)
Operating Temperature	0° – 70° C

FIRMWARE + SOFTWARE

CPU OS	Reference Linux* OS for IoT, with Linux 4.4 Kernel Application Framework support for Node.js*, Python* and C/C++
BIOS	Open-source UEFI-compliant BIOS
Software Development Environments	Intel® IoT Developer Kit, including: Intel® System Studio IoT Edition Intel® XDK for JavaScript development Intel® XDK IoT Edition Intel® RealSense™ SDK

EXTERNAL INTERFACES

Two 100-pin connectors

1 USB 3.0 (support for OTG & Type C connector) or 1 USB 2 (support for OTG & Type A/B connector)	1 I2S Audio Interface	1 HDMI* 1.4b (4K @ 30 fps)
	2 Digital Microphones	Panel Back Light Control
1 USB 3.0/PCIe 2.0 (Muxed)	5 I2C	1 RTC Clock
	2 SPI	1 19.2 MHz Clock
1 SDIO for SD* Card 3.0	4 UART	4 PWM
Up to 48 GPIO	1 MIPI* DSI, 4-lane	

Two 4-Lane MIPI CSI Connectors

Each with dedicated GPIO, I2C, and power lines

Wireless

802.11ac Wi-Fi, dual-band (2.4 GHz & 5 GHz)

Bluetooth 4.1 compliant

MHF4 connectors for external antennas

MAJOR COMPONENTS

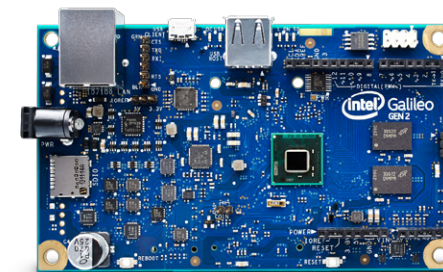
Processor	14-nm, 64-bit, quad-core Intel® Atom™ processor at 1.5 GHz, or 1.7 GHz with 2.4 GHz burst
Graphics	On-chip Intel® HD Graphics 300 MHz, or 450 MHz with burst up to 650 MHz, and 4K video capture and display
RAM	3 GB or 4 GB LPDDR4 PoP memory
Flash Storage	8 GB or 16 GB eMMC 5.0
On-chip image signal processor	
Video Encode/Decode Accelerators	
Intel® Trusted Execution Engine (TXE)	



INTEL® GALILEO GEN 2 BOARD

A PLATFORM ON WHICH TO EXPAND YOUR SKILLS AS A DEVELOPER

Combines the simplicity of the Arduino development environment with the performance of Intel technology and the capabilities of a full Linux software stack.



Product Specifications

PHYSICAL

Form Factor	PCBA (no enclosure)
Dimensions	~123.8 mm x 72.0 mm
Arduino Compatible	Arduino Uno R3* / Arduino 1.0 pinout (both 3.3V or 5V Shield support)

MAJOR INTEL GALILEO COMPONENTS

SoC	Quark X1000 @ 400MHz
RAM	256 MByte DDR3; 512 KByte embedded SRAM
Flash Storage	8 MByte NOR Flash; 8 Kbit EEPROM
LAN	10/100 Ethernet (RJ-45 connector) with support for Power-over-Ethernet
PCIe	Mini-PCI Express 1x Slot
USB	USB 2.0 Host Port (standard Type A); USB 2.0 Client Port (micro-USB Type B)

EXTERNAL INTERFACES

LAN	10/100 Ethernet (RJ-45 connector) with support for Power-over-Ethernet
PCI-E	Mini-PCI Express 1x Slot
USB	USB 2.0 Host Port (standard Type A); USB 2.0 Client Port (micro-USB Type B)
Digital I/O	20 – 12 native (high-speed) to SoC (6 with 12 bit PWM)
Analog In	6 – improved AD converter
UART	2 Controllers (UART 0 to Arduino headers 0,1; UART 1 to 6-pin 3.3V USB TTL FTDI header; optionally directed to Arduino 2,3)
I2C	1 Master (to Arduino headers)
SPI	1 Master (to Arduino headers)
SD Card	MicroSD (Maximum 32 GB)
JTAG	10-pin connector
PWM	12 bit
NOR Flash	7-pin connector for ext. programmer
RTC Battery	2-pin header

FIRMWARE + SOFTWARE

Supported OS	Yocto-built Linux distribution
Supported Hosts	Mac OSX, Windows, Linux
Development System	Arduino IDE customized for Intel Galileo
User Programs	Arduino Sketches; full Linux access

INBOX

Development Board	Intel® Galileo Gen 2
Power Supply	International, 12VDC
Documentation	Safety & Regulatory flyer

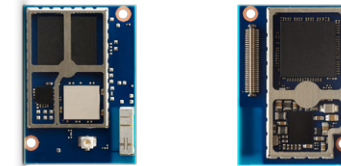
POWER

Input (DC)	Power Adapter (7V – 15V DC)
Input (PoE)	Power-over-Ethernet support with user-supplied PoE module installation

INTEL® EDISON COMPUTE MODULE

THE COMPACT COMPUTE MODULE THAT MAKES IS EASY TO TAKE YOUR INVENTION TO MARKET

Designed for connected-application innovators, the Intel® Edison development platform creates a unique rapid-prototyping environment and provides a migration path to product deployment.



Product Specifications

PHYSICAL

Form Factor	Board with 70-pin connector
Dimensions	35.5 x 25.0 x 3.9 mm max
C/M/F	Blue PCB with Shields / No enclosure
Connector	Hirose DF40 Series (1.5mm, 2.0mm, or 3.0mm stack height)
Operating Temperature	0 – 40 degC
Relative Humidity	70degC, 160hrs, 85% RH, non-operational
Industrial	No extended temp, or long life

EXTERNAL INTERFACES

Total of 40 GPIOs which can be configured as:

SD Card	1 Interface
UART	2 Controllers (1 full flow control, 1 RX/TX)
I2C	2 Controllers
SPI	1 Controller with 2 chip selects
I2S	1 Controller
GPIO	Additional 12 (with 4 capable of PWM)
USB 2.0	1 OTG Controller
Clock Output	32 KHz, 19.2 MHz

FIRMWARE + SOFTWARE

Supported OS	Yocto-built Linux distribution
Development Environments	Arduino IDE Eclipse supporting: C, C++, & Python Intel XDK supporting: Node.JS & HTML5
MCU OS	RTOS
Development Environments	MCU SDK and IDE

MAJOR INTEL EDISON COMPONENTS

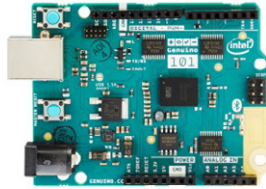
SoC	Dual-core Intel® Atom™ CPU @ 500 MHz
MCU	32-bit Intel® Quark MCU @ 100 MHz
RAM	1 GB LPDDR3 POP memory(2 channel 32bits @ 800MT/sec)
Flash Storage	4 GB eMMC (v4.51 spec)
Wi-Fi	Broadcom* 43340 802.11 a/b/g/n; Dual-band (2.4 and 5 GHz) On board antenna or external antenna SKU configurations
Bluetooth	BT 4.0 + 2.1 EDR

POWER

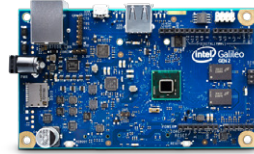
Input	3.3V – 4.5V
Output	100ma @3.3V and 100ma @ 1.8V
Power	Standby (No radios): 13mW Standby (BT): 21.5mW (BTLE in Q4'14) Standby (WiFi): 35 mW

SUMMARY

Intel's Maker & Innovator family of development tools are designed to make it easy and fun for professionals and makers to design and build computing devices, interactive environments, embedded systems, or practically anything they can imagine. For those just learning about electronics or coding, the Arduino 101 development board is a great place to start. Intel® Galileo Gen 2 provides a platform on which to expand your skills as a developer, and Intel® Edison – the compact compute module that supports Wi-Fi and Bluetooth connectivity – makes it easy to take your invention to market. Intel® Joule™, Intel's highest-performing system-on-module, packs powerful compute capabilities in a thumb-sized, low-power package, enabling developers to create all manner of autonomous robots and IoT applications requiring computer vision or edge processing.



Arduino 101 (US only) / Genuino 101 (outside US) Board, powered by Intel® Curie™ Module



Intel® Galileo Gen 2 Board



Intel® Edison Compute Module



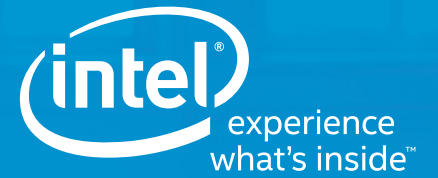
Intel® Joule™ Compute Module

Intel Technology	Low-power, 32-bit Intel® Quark™ microcontroller	Intel® Quark™ SoC X1000 application processor, a 32-bit, single-core, single-thread, Intel® Pentium® processor instruction set architecture (ISA)-compatible, operating at speeds up to 400 MHz	22-nm Intel® SoC that includes a dual-core, dual-threaded Intel® Atom™ CPU at 500 MHz and a 32-bit Intel® Quark™ microcontroller at 100 MHz	14-nm Intel® SoC that includes a quad-core Atom T5700, 1.7GHz, Intel HD graphics
Primary Focus	K-12 Education / Makers	Higher Ed / Makers / Hobbyists	Makers / Embedded, Edge Developers / Entrepreneurs	Embedded, Edge Developers / Entrepreneurs
Differentiators	Bluetooth, Motion Sensors	Multiple Physical Connections including a PCIe slot	Modular design, Wi-Fi, Bluetooth, Certified in 160+ countries	Modular design, Wi-Fi, Bluetooth, Certified in 100+ countries, USB3, PCIe, MIPI CSI & DSI


Intel technologies may require enabled hardware, specific software, or services activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at intel.com. The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc, and any use of such marks by Intel Corporation is under license.

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* Other names and brands may be claimed as the property of others.



INTEL® GRAPHICS TECHNOLOGY



INTEL® GRAPHICS TECHNOLOGY

Immerse yourself in rich, vivid visuals enabled by integrated Intel® HD Graphics, Iris™ Graphics, Iris™ Plus Graphics, and Iris™ Pro Graphics, delivering built-in 4K Ultra HD for new home theater, gaming, and conferencing experiences.

INTEL® GRAPHICS TECHNOLOGY

Experience visual perfection with Intel® HD graphics, Iris™ graphics¹, Iris™ Plus graphics, and Iris™ Pro graphics². Watch captivating 4k video on three screens possible, edit photos and videos like a professional, and immerse yourself in vividly rendered, seamless 3D gameplay. Intel HD graphics and Iris graphics are built right in to the processor, bringing stunning visuals to thinner and lighter portable devices, like Notebook 2 in 1s, portable All-in-Ones and desktop computers.

Stunning Visuals with Intel® Iris™ Graphics

Experience visual clarity with Intel® HD graphics, Iris™ graphics¹, Iris™ Plus graphics, and Iris™ Pro graphics². Watch captivating 4k video, edit photos and videos like a professional, and immerse yourself in vividly rendered, seamless 3D gameplay.



Intel® HD Graphics

Great baseline experience and up to 720p gaming.

Enjoy entry level gaming up to 720p and see 4K videos come to life in vibrant, flowing clarity. Dive into detailed photo and video editing without missing a beat. Get the visual performance you expect.



Intel® Iris™ Plus Graphics

Intel® Iris™ Plus graphics deliver the high-impact visuals you want.

Intel® Iris™ Plus graphics deliver advanced performance for captivating 4K visuals. Iris™ Plus Graphics includes high-speed on-package memory for better overall performance. Edit photos and videos like a pro with fast processor graphics. Stretch entertainment to multiple screens for home entertainment and gaming. Challenge your skills and enjoy texture-rich graphics for vivid gaming. Get the high-impact visuals you want.



Intel® Iris™ Pro Graphics

Intel® Iris™ Pro graphics elevate both work and play with enhanced media conversion and faster frame rates.

Intel® Iris™ Pro graphics elevate both work and play with enhanced media conversion and faster frame rates. Bring animations to life and edit 4K video quickly and smoothly. Play the latest 3D games up to 1080p in realistic, fluid detail. Work smarter, play harder and see your world in higher resolution.

7TH GENERATION INTEL® PROCESSOR GRAPHICS

7th Generation Intel® Processor Graphics

Intel® 7th Generation Processor Graphics delivers advanced performance for captivating visuals. With 7th Gen Intel® Core™ processors, you can watch, create, share, and game like never before. Premium content comes to life in 4K Ultra HD, so users can enjoy amazing and vibrant multimedia experiences on compatible displays. Edit photos and videos like a pro with fast processor graphics. Expand entertainment with multiple video streams, 360° video and high resolution video chat. Challenge your skills with agile, texture-rich graphics for HD gaming. Get the high-impact visuals you want on premium Notebooks, 2 in 1s, mini-pcs and all-in-ones.



		INTEL® HD GRAPHICS 620 ²	INTEL® HD GRAPHICS 650 ⁴
Productivity	SYSmark* 2014	1.0	1.11x
Video Editing	TouchXPRT* 2016	1.0	1.40x
Gaming	3DMark* 11	1.0	1.65x



7th Generation Intel® Processor Graphics

	INTEL® IRIS™ PLUS GRAPHICS 650	INTEL® IRIS™ PLUS GRAPHICS 640	INTEL® HD GRAPHICS 630	INTEL® HD GRAPHICS 620	INTEL® HD GRAPHICS 610	INTEL® HD GRAPHICS 615
Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ M Family
Processor Line	U-Series	U-Series	H-Series	U-Series	U-Series	Y-Series
Platform	Mobile	Mobile	Mobile	Mobile	Mobile	Mobile
Processor Number	i7-7567U	i7-7660U	i7-7920HQ	i7-7600U	4415U	m-7Y75
	i5-7287U	i7-7560U	i7-7820HQ	i7-7500U	3965U	m-7Y57
	i5-7267U	i5-7360U	i7-7820HK	i5-7300U	3865U	m-7Y54
	i3-7167U	i5-7260U	i7-7700HQ	i5-7200U		m-7Y30
			i5-7440HQ	i3-7100U		
			i5-7300HQ			
			i3-7100H			

6TH GENERATION INTEL® PROCESSOR GRAPHICS

Intel® Iris™ Graphics

Intel® Iris™ Graphics delivers advanced performance for captivating 4K visuals. Edit photos and videos like a pro with fast processor graphics. Expand entertainment to multiple screens for home entertainment and gaming. Challenge your skills with agile, texture-rich graphics for gaming. Get the high-impact visuals you want on premium Notebooks, 2 in 1s, mini-pcs and all-in-ones.



		INTEL® HD GRAPHICS 520 ²	INTEL® IRIS™ GRAPHICS 540 ³	INTEL® HD GRAPHICS 550 ⁴
Productivity	SYSmark* 2014 Overall	1.0	1.06x	1.12x
Video Editing	CyberLink* MediaEspresso 7 Ultra HD Media Transcode	1.0	1.40x	1.40x
Gaming	3DMark* 11 Graphics Score (relative)	1.0	1.30x	1.80x



6th Generation Intel® Processor Graphics

	INTEL® IRIS™ GRAPHICS 580	INTEL® IRIS™ GRAPHICS 550	INTEL® IRIS™ GRAPHICS 540	INTEL® HD GRAPHICS 530	INTEL® HD GRAPHICS 520	INTEL® HD GRAPHICS 510	INTEL® HD GRAPHICS 515
Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ Processor Family	Intel® Core™ M Family
Processor Line	H-Series	U-Series	U-Series	H-Series	U-Series	U-Series	Y-Series
Platform	Mobile	Mobile	Mobile	Mobile	Mobile	Mobile	Mobile
Processor Number	i7-6970HQ	i7-6567U	i7-6650U	i7-6920HQ	i7-6600U	4405U	m-6Y75
	i7-6870HQ	i5-6287U	i7-6560U	i7-6820HQ	i7-6500U	3995U	m-6Y57
	i7-6770HQ	i5-6267U	i5-6360U	i7-6820HK	i5-6300U	3855U	m-6Y54
	i5-6350HQ	i3-6167U	i5-6260U	i7-6700HQ	i5-6200U		m-6Y30
				i5-6440HQ	i3-6100U		
				i5-6300HQ			
				i3-6100H			

5TH GENERATION INTEL[®] PROCESSOR GRAPHICS

Intel[®] Iris[™] Graphics

Intel[®] Graphics Technology gives you discrete-level graphics power and performance without the additional add-in card, integrated right into your favorite Intel processor. The results are clear: home theater, gaming, conferencing and video and photo editing are smooth, vivid and faster than ever before. It's an immersive experience for premium notebooks, Ultrabook[™], mini-pcs, and all-in-ones.



		INTEL [®] HD GRAPHICS 5500 ⁵	INTEL [®] IRIS [™] GRAPHICS 6100 ⁶	INTEL [®] IRIS [™] PRO GRAPHICS 6200 ⁷
Productivity	CPU Performance SYSmark [®] 2014 Overall	1x	1.10x	1.70x
Video Editing	Quick Sync Video Accelerated Conversion Performance HDXPRT [®] Video Conversion	1x	1.20x	1.95x
Gaming	3DMark [®] 11-P Graphics Subscore, 3DMark [®] Firestrike Graphics Subscore, 3DMark [®] Vantage-P Graphics Subscore	1x	1.50x	2x

5th Generation Intel[®] Processor Graphics

	INTEL [®] IRIS [™] PRO Graphics 6200	INTEL [®] IRIS [™] PRO Graphics 6200	INTEL [®] IRIS [™] Graphics 6100	INTEL [®] IRIS [™] Graphics 6000	INTEL [®] HD Graphics 5600	INTEL [®] IRIS [™] Graphics 5500	INTEL [®] HD Graphics 5300	INTEL [®] HD Graphics
Processor Family	Intel [®] Core [™] Processor Family	Intel [®] Core [™] M Processor Family	Intel [®] Core [™] M Processor Family	Intel [®] Core [™] M Processor Family	Intel [®] Core [™] M Processor Family	Intel [®] Core [™] M Processor Family	Intel [®] Core [™] M Processor Family	Intel [®] Pentium [®] / Intel [®] Celeron [®]
Processor Line	S-Series	H-Series	U-Series	U-Series	H-Series	U-Series	Y-Series	U-Series
Platform	Desktop	Mobile	Mobile	Mobile	Mobile	Mobile	Mobile	Mobile
Processor Number	i7-5775R	i7-5950HQ	i7-5557U	i7-5650U	i7-5700HQ	i7-5600U	M-5Y70	3805U
	i7-5775C	i7-5850HQ	i7-5287U	i7-5550U		i7-5500U	M-5Y71	3755U
	i5-5675R	i7-5750HQ	i7-5257U	i5-5350U		i5-5300U	M-5Y31	3205U
	i5-5675C	i5-5350H	i7-5157U	i5-5250U		i5-5200U	M-5Y10	3825U
	i5-5575R					i5-5010U	M-5Y10a	3765U
						i5-5005U	M-5Y10c	3215U

Intel® Core™ i7-7567U Processor (e*) up to 4 GHz, 4T/2C, 4MB w/ Iris Plus Graphics 650 vs. Intel® Core™ i7-7500U Processor (e*) up to 3.5GHz, 4T/2C, 4MB w/ HD Graphics 620

Estimates and measurements based on (1) Productivity - SYSmark* 2014 Overall Score, (2) Media Editing - TouchXPRT* 2016 -Convert Videos for sharing Sub-score, (3) 3DMark* Sky Diver* - Graphics Score

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to <http://www.intel.com/performance>

¹ Data based on SKUs below

² Core i7-6500U 15W w/HD Graphics 520

³ Core i7-6560U 15W w/Iris Graphics 540

⁴ Core i7-6567U 28w w/Iris Graphics 550

⁵ System configuration for 5th Generation Intel Core Processor w/ HD Graphics 5500: Intel CRB, Intel® Core™ i7-5600U Processor, 2C4T, Turbo up to 3.2GHz, Memory: 2x2GB LPDDR3-1600, Storage: Intel SSD, Display Resolution:1920x1080.

⁶ System configuration for 5th Generation Intel Core Processor w/ Iris Graphics 6100: Intel CRB, Intel® Core™ i7-5557U 15W/28W, 2C4T, Turbo up to 3.2GHz/3.4 GHz, Memory: 2x2GB LPDDR3-1866, Storage: Intel SSD, Display Resolution:1920x1080. (Estimates based on measurements done with DDR3L)

⁷ System configuration for 5th Generation Intel Core Processor w/ Iris Pro Graphics 6200: Intel CRB, Intel® Core™ i7-5950HQ PL1=47W TDP, 4C8T, Turbo up to 3.8 GHz, Memory: 2x4GB DDR3-1866, Storage: Intel SSD, Display Resolution:1920x1080.

System configuration for Desktop LGA 5th Generation Intel Core Processor w/ Iris Pro Graphics 6200: Intel CRB, Intel® Core™ i7-5775C PL1=65W TDP, 4C8T, Turbo up to 3.7 GHz, Memory: 2x4GB DDR3-1866, Storage: Intel SSD, Display Resolution:1920x1080. System configuration for Previous Gen Desktop LGA 4th Generation Intel Core Processor: Intel CRB, Intel® Core™ i7-4790S 65W, 4C8T, Turbo up to 4.0 GHz, Memory: 2x4GB DDR3L-1600, Storage: Intel SSD, Display Resolution:1920x1080.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

* Other names and brands may be claimed as the property of others.



INTEL[®] SECURITY



INTEL® SECURITY

Intel Security seeks to help your customers securely connect and enrich their lives by providing them peace of mind knowing their content is safer across a wide array of devices. Intel Security offers a variety of software product options for consumers and businesses for different levels of need.

CROSS-DEVICE CONSUMER PRODUCTS



Good



Better



Best

SINGLE PC / MOBILE / BUSINESS



Single PC



Mobile



Business

RESELLER OPPORTUNITY

Earn 20% of all renewal revenue when end customer renews product subscription. Upload product serial numbers to identify your customer's products.

www.intel.com/McAfee-SerialNumbers

To learn more about Intel Security products, visit www.intel.com/mcafee-reseller

PRODUCT OFFERINGS

You'll find downloadable marketing materials, product training, positioning, and more.

www.intel.com/McAfee-Reseller



FEATURES

- PC, Mac, Android, and iOS mobile security
- Next Generation Anti-malware Engine with GTI
- Two-way Firewall
- Web Browsing Protection
- Powerful Anti-spam Engine
- File Shredder
- Backup Mobile Contacts
- Locate, Track, Lock, and Wipe your Mobile device
- Safeguard Against Risky Mobile Apps
- Free Technical Support
- Single PC Virus Removal Service[†]
- My Account Dashboard – cloud-based management

McAfee® Small Business Security

THE CLOUD IS REDEFINING THE SMALL BUSINESS PLAYING FIELD

- By 2020, 78% of small businesses will be fully adapted to the cloud up from 37% in 2014
- Cheaper and easier to start and scale a business
- Enables platforms, networks and ecosystems
- Variable instead of fixed costs
- Greatly enhanced customer acquisition, service and support
- Access to technology and capabilities once only available to large organizations

Challenges Small Businesses Face Around Security

LACK OF EXPERTISE AND TIME

- Generalist: Often multi-tasking on key business objectives
- With only minutes in any given day to devote to security, they don't have time to be experts

LACK OF BUDGET

- Price Sensitive: Concerned with total cost of security solution
- Don't have planned budget for IT security
- Concerned about security but not sure how much to deploy/spend on solution
- Some owners resist investing and force IT to use free tools

PREVENT DATA LOSS

- Concerned with security of their critical data
- Want to ensure that the data doesn't fall into the wrong hands
- Prevent unwanted applications or viruses from getting introduced through removable devices

How MSSB Meets a Small Business's Needs

Comprehensive security for your business.

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Protects the business's customer data and sensitive information from online threats 	<ul style="list-style-type: none"> • Guards against viruses and online threats, GTI technology, web, email, and firewall protection
<ul style="list-style-type: none"> • Affordable 	<ul style="list-style-type: none"> • Very competitively priced
<ul style="list-style-type: none"> • Simple and easy-to-manage 	<ul style="list-style-type: none"> • My Account Dashboard: One central console to remotely manage all the devices used for the business
<ul style="list-style-type: none"> • Covers all mobile devices for the business 	<ul style="list-style-type: none"> • Protects PCs, Macs and Android and iOS smartphones and tablets [Unlimited number of mobile devices**]
<ul style="list-style-type: none"> • Award-winning Technical Support 	<ul style="list-style-type: none"> • 24x7 Technical Support for the lifetime of the subscription • Single PC Virus Removal Service[†]

[†] One redemption of PC Virus Removal Service per subscription year is included with each copy of McAfee Small Business Security purchased.



SYSTEM REQUIREMENTS

- Windows 10 (32- and 64-bit)
- Windows 8.1 (32- and 64-bit)
- Windows 8 (32- and 64-bit)
- Windows 7 (32- and 64-bit)
- Windows XP SP3 or higher (32-bit)
- Mac OS X 10.7 and 10.8
- Google Android smartphones and tablets 2.3 or later
- iOS 5 or higher

INTERNET CONNECTION REQUIRED

- High-speed connection recommended

SUPPORTED BROWSERS FOR ANTI-PHISHING

- Internet Explorer 7.0 or later
- Firefox 12 or later
- Google Chrome 6.0 or later
- Safari 5 or later

REQUIRED FOR McAfee ANTI-SPAM TOOLBAR

- Windows Mail or Outlook Express 6.0+
- Outlook XP+
- Thunderbird 5.0
- McAfee Anti-Spam also supports other POP3 e-mail clients (without SSL) and web accounts

McAfee® LiveSafe™

ULTIMATE PROTECTION FOR YOUR DATA, IDENTITY, AND PRIVACY ON EVERY DEVICE** YOU OWN

Surf, shop, bank, share, and enjoy your life online with confidence. McAfee LiveSafe service helps secure your digital life. Designed to fit the way you live, the McAfee LiveSafe service protects your data, your identity, and your devices.

McAfee LiveSafe Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
Unlimited Cross-Device Protection**	<ul style="list-style-type: none"> • One annual subscription helps protect your PC, Mac, smartphone, and tablet 	<ul style="list-style-type: none"> • Provides comprehensive protection for your various platforms with one license
Antivirus and AntiMalware Protection	<ul style="list-style-type: none"> • Powerful combination of protection services helps keep your data safe from malware threats 	<ul style="list-style-type: none"> • Helps protect your devices with vulnerability scanner, realtime anti-malware, two-way firewall, file shredder, and more
Parental Control	<ul style="list-style-type: none"> • Keeps you in control of what your family sees and does online 	<ul style="list-style-type: none"> • Helps you protect your children from exposure to inappropriate content, and control how much time they spend online
Home Network Defense	<ul style="list-style-type: none"> • Helps protect your network and PCs 	<ul style="list-style-type: none"> • Helps prevent intruders from accessing your home network
Social Network Protection	<ul style="list-style-type: none"> • Helps safeguard URL sharing 	<ul style="list-style-type: none"> • Helps protect your friends and family if a link you send becomes risky
Remotely Wipe Data	<ul style="list-style-type: none"> • Preserves your privacy on mobile devices 	<ul style="list-style-type: none"> • Allows you to remotely wipe all contacts, photos, calendars, text messages, browsing history, and SD card content
Backup and Restore Mobile Data	<ul style="list-style-type: none"> • Preserves your irreplaceable personal information 	<ul style="list-style-type: none"> • Makes a restorable copy of your content in the event that you need a new phone
Track and Lock	<ul style="list-style-type: none"> • Helps track and lock your mobile devices remotely 	<ul style="list-style-type: none"> • Track and lock your tablets and smartphones if they are lost or stolen
App Protection	<ul style="list-style-type: none"> • Helps you share apps safely and helps safeguard your information from risky apps 	<ul style="list-style-type: none"> • Helps control which apps family members—or even strangers—can access. Monitors mobile device apps and alerts you of suspicious activity
Call and SMS Filter	<ul style="list-style-type: none"> • Filters spam, wrong numbers, and unwanted SMS/MMS messages 	<ul style="list-style-type: none"> • Helps keep unwanted content out of your mobile device
Uninstall Protection	<ul style="list-style-type: none"> • Provides password protection for app uninstall 	<ul style="list-style-type: none"> • Helps prevent intruders from bypassing your McAfee mobile protection and wiping apps and device data
Intel Security True Key™ Identity Manager (5 user accounts)	<ul style="list-style-type: none"> • The easier, safer way to unlock your digital world 	<ul style="list-style-type: none"> • Quickly and easily log in to sites, apps, and more using facial recognition and your trusted devices (multi-factor authentication)
McAfee Personal Locker	<ul style="list-style-type: none"> • Helps protect your personal data in the cloud 	<ul style="list-style-type: none"> • Helps protect your personal data in the cloud Biometric authentication scans your voice and face to ensure that only you can access your files



McAfee® LiveSafe™ Features Across Devices

FEATURES	PC	MAC	SMARTPHONES AND TABLETS (ANDROID, iOS)
Antivirus	●	●	●
Anti-spyware	●	●	●
Anti-phishing	●	●	●
Firewall	●	●	○
Safe Search and Surf	●	●	●
Anti-spam	●	●	○
Parental Control	●	○	○
Home Network Defense	●	○	○
Social Network Protection	●	○	○
File Shredder	●	○	○
Vulnerability Scanner	●	○	○
Mobile Device Lock	○	○	●
Remotely Wipe Data (Mobile Devices)	○	○	●
Backup and Restore Mobile Data	○	○	●
Track (Mobile Devices)	○	○	●
App Protection	○	○	●
Call and SMS Filter	○	○	●
Uninstall Protection	○	○	●
True Key™ Identity Manager	●	●	●
Secure Cloud Storage	●	○	●

- Supported
- Not Supported



SYSTEM REQUIREMENTS

- Windows 10 (32- and 64-bit)
- Windows 8.1 (32- and 64-bit)
- Windows 8 (32- and 64-bit)
- Windows 7 (32- and 64-bit)
- 1 GB RAM for Windows 7
- 2 GB RAM for Windows 8 and above
- 500 MB free drive space
- 1 GHz processor
- Minimum screen resolution: 1024 x 768 or higher
- Google Android smartphones and tablets 2.3 or later
- iOS 5 or higher

INTERNET CONNECTION REQUIRED

- High-speed connection recommended

SUPPORTED BROWSERS FOR ANTI-PHISHING

- Internet Explorer 8.0 or later
- Firefox 4.0 or later
- Google Chrome

SUPPORTED E-MAIL PROGRAMS

- POP3—Windows Mail, Outlook Express, Outlook,
- Netscape, IncrediMail, Thunderbird, Becky, Shuriken
- MAPI—Outlook
- Web—MSN/Hotmail or e-mail account with POP3 access

REQUIRED FOR McAfee ANTI-SPAM TOOLBAR

- Windows Mail or Outlook Express 6.0+
- Thunderbird 5.0+
- McAfee Anti-Spam also supports other POP3 e-mail clients (without SSL) and web accounts

McAfee® Internet Security

TRUSTED ANTI-VIRUS AND IDENTITY MANAGEMENT FOR EVERY DEVICE** YOU OWN

Help keep your identity and family secure online with comprehensive, real-time antivirus, anti-malware, firewall, spam filters, and parental controls on every device** you own.

McAfee Internet Security Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
McAfee Active Protection	<ul style="list-style-type: none"> • Scans for malware known to interfere with product installations • Authenticates in real-time to determine if an application is a threat • Quarantines and eliminates threats by cross-checking against signature files that auto-download from the McAfee Global Threat Intelligence cloud 	<ul style="list-style-type: none"> • Helps keep your PC running fast and free of threats • Helps to prevent cyber criminals from stealing your passwords and taking control of your PC • Helps keep your data safe from deletion or corruption
McAfee Global Threat Intelligence	<ul style="list-style-type: none"> • Aggregates threat data from more than one hundred million McAfee users across the globe • Combines and categorizes threat data into actionable intelligence • Deploys real-time protection from the latest threats to your PC running a McAfee security suite 	<ul style="list-style-type: none"> • Uses the same reputation database as the Department of Defense • Leverages the latest threat intelligence shared from businesses and personal users • Helps protect you from both known and emerging cyber threats, regardless of the source of those threats or where they propagate
NetGuard	<ul style="list-style-type: none"> • Monitors traffic both in and out of your PC • Helps stop data transfers to unsafe destinations • Helps deny unauthorized persons and programs from gaining network and PC access 	<ul style="list-style-type: none"> • Helps to stop hackers from accessing your PC • Helps prevent your PC from spreading malware and spam • Helps safeguard your sensitive information like account names and passwords
Network Manager	<ul style="list-style-type: none"> • Identifies the names of all the devices connected to your Wi-Fi • Notifies you when unknown and new devices gain access to your Wi-Fi 	<ul style="list-style-type: none"> • Enables you to monitor the devices connecting to your home Internet
Web Protection	<ul style="list-style-type: none"> • Scans downloads for suspicious material • Identifies URLs as safe, potentially risky, or known to be risky to visit • Blocks replicas of legitimate sites designed to steal your information • Blocks malicious iFrames on hacked web sites 	<ul style="list-style-type: none"> • Helps you make smarter decisions about what you click on and download • Helps prevent you from spreading malicious content to your social networks • Helps proactively protect users against malicious web sites by presenting the block page as a warning that clicking-through will lead them to a known-risky site
Vulnerability Scanner	<ul style="list-style-type: none"> • Identifies software in need of updating by checking the version against the McAfee database • Provides one-click solution to update popular software 	<ul style="list-style-type: none"> • Enables you to more easily update software to avoid security holes

Continued on next page

McAfee® Internet Security Features

Continued from previous page

FEATURE	WHAT IT DOES	HOW IT PROTECTS
McAfee QuickClean	<ul style="list-style-type: none">• Deletes unnecessary cookies and temporary Internet files, and empties your Recycle Bin• Scans for and repairs problems in your Windows registry key	<ul style="list-style-type: none">• Safely fixes problems in your registry and frees up disk space• Improves PC response time
McAfee Shredder	<ul style="list-style-type: none">• Securely destroys files from your PC as if they were never there in the first place• Manually delete sensitive documents like tax files and copies of your passport	<ul style="list-style-type: none">• Helps prevent hackers from being able to recover and restore files that you have chosen to shred
Parental Controls	<ul style="list-style-type: none">• Applies adjustable rules to block inappropriate sites and limit online time• Filters search results for inappropriate content	<ul style="list-style-type: none">• Gives parents the ability to control what children can and cannot do online• Helps ensure children are not exposed to inappropriate content
Anti-Spam	<ul style="list-style-type: none">• Filters dangerous messages containing bad links and file attachments (i.e. Trojans, Phishing)• Quarantines messages from suspicious IP addresses• Stops annoying junk mail from cluttering your inbox	<ul style="list-style-type: none">• Helps keep dangerous e-mails out of your inbox• Works with your favorite e-mail client (like Outlook, Thunderbird, and IncrediMail)
Intel Security True Key™ Identity Manager (1 user account)	<ul style="list-style-type: none">• The easier, safer way to unlock your digital world	<ul style="list-style-type: none">• Quickly and easily log in to sites, apps, and more using facial recognition and your trusted devices (multi-factor authentication)



SYSTEM REQUIREMENTS

- Windows 10 (32- and 64-bit)
- Windows 8.1 (32- and 64-bit)
- Windows 8 (32- and 64-bit)
- Windows 7 (32- and 64-bit)
- Windows XP SP3 or higher (32-bit)
- 512 MB RAM for Windows XP
- 2 GB RAM for Windows 7 and above
- 500 MB free drive space
- 1 GHz processor

INTERNET CONNECTION REQUIRED

- High-speed connection recommended

McAfee® AntiVirus Plus

TRUSTED ANTI-VIRUS FOR EVERY DEVICE** YOU OWN

When you surf, shop, and socialize, the last thing you want to think about is online risk. That's why McAfee is relentless when it comes to digital security, working hard to stay ahead of the latest internet threats. Our 24/7 obsession means reliable protection for your Intel-powered systems – so you can work and play online with confidence.

- Firewall, Web Safety & PC Optimization Tools
- Security Management Console
- FREE Support

McAfee AntiVirus Plus Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
Unlimited Cross-Device Protection**	One annual subscription helps protect your PC, Mac, smartphone, and tablet	Provides comprehensive protection for your various platforms with one license
High-Performance Scanning Engine	Uses next-generation technology to scan systems for the latest viruses, trojans, spyware, and other threats. It works in the background without slowing the system	Helps identify and block system threats
Firewall (2-way)	Helps protect system from incoming threats and safeguards personal information from being stolen	Helps keep threats out and private information in
Vulnerability Scanner	Scans system for missing updates and recommends solutions to keep the PC safe	Proactively protects systems by keeping updates current
NetGuard Anti-Bot Protection	Disables hackers from sending out personal information	Preventative protection of personal information
Site Advisor Social	Helps detect malicious links in social networks	Surf social networks confidently
Safe Search	Features color-coded icons next to every search and social media result to identify sites that are safe	Helps you stay away from potentially risky sites
Touch Interface	Works effectively with Windows 10 and systems with touch and provides a touch-friendly home screen	Easy system management
McAfee QuickClean	Removes unused applications and files to speed up the system	Helps keep system running optimally and removes potentially sensitive, unused files
Enhanced Digital Data Messages	Includes the location of blocked IP addresses and identifies what makes connections unsafe	Identifies potential threatening web sites and connections
Enhanced Security Reports	Redesigned to give the user information in fresh and engaging ways, including an easier-to-understand snapshot of what's happening in the world of security	Keeps you informed of security information
Malicious Ad and Pop-up Protection	Web sites do not always monitor their advertising—offers protection against malicious pop-ups and ads	Automatically blocks suspicious content



SYSTEM REQUIREMENTS

- Windows 10 (32- and 64-bit)
- Windows 8.1 (32- and 64-bit)
- Windows 8 (32- and 64-bit)
- Windows 7 (32- and 64-bit)
- Windows XP SP3 or higher (32-bit)
- 1 GB RAM for Windows 7
- 2 GB RAM for Windows 8 and above
- 1 GHz processor

INTERNET CONNECTION REQUIRED

- High-speed connection recommended

SUPPORTED BROWSERS

- Internet Explorer 9.0 or later
- Firefox 4.0 or later
- Google Chrome

McAfee® AntiVirus

TRUSTED ANTI-VIRUS FOR YOUR PC

When you surf, shop, and socialize, the last thing you want to think about is online risk. That's why McAfee is relentless when it comes to digital security, working hard to stay ahead of the latest internet threats. Our 24/7 obsession means reliable protection for your Intel-powered systems – so you can work and play online with confidence.

- Shield your PC from viruses and online threats
- Optimize your PC's performance
- Wi-Fi and download protection tools

McAfee AntiVirus Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
High-Performance Scanning Engine	Uses next-generation technology to scan systems for the latest viruses, trojans, spyware, and other threats. It works in the background without slowing the system	Helps identify and block system threats
Firewall (2-way)	Helps protect system from incoming threats and safeguards personal information from being stolen	Helps keep threats out and private information in
Vulnerability Scanner	Scans system for missing updates and recommends solutions to keep the PC safe	Proactively protects systems by keeping updates current
NetGuard Anti-Bot Protection	Disables hackers from sending out personal information	Preventative protection of personal information
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Malicious Ad and Pop-up Protection	Web sites do not always monitor their advertising—offers protection against malicious pop-ups and ads	Automatically blocks suspicious content



SYSTEM REQUIREMENTS

- Google Android 2.3 or later (runs on Kindle Fire devices)
- iOS 5 or higher

ONLINE MANAGEMENT PORTAL BROWSER SUPPORT

- Internet Explorer 7.0 or later
- Firefox 3.5 or later
- Safari 3.0 or later
- Chrome

McAfee® Mobile Security

THE ULTIMATE PROTECTION FOR YOUR MOBILE LIFE

Explore everything the new mobile world has to offer, and do it safely and confidently with industry-leading McAfee Mobile Security. When you select new apps, shop online, browse social networks, or use your device for banking and payments, McAfee Mobile Security is there to protect you.

McAfee® Mobile Security Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
McAfee Active Protection	Provides real-time protection	Scans for malicious code in apps, SD cards, and Internet downloads
Uninstall Protection	Password protection for app uninstall	Helps prevent thieves from bypassing your McAfee mobile protection and wiping your apps and device data
McAfee App Alert	Notifies you when unusual access is requested	Allows you to determine if you trust the app
App Lock	Helps prevent app usage by unauthorized users	Helps block access to private, personal apps such as banking, medical, etc.
Call and SMS Filter	Filters spam, wrong numbers, and unwanted SMS / MMS messages	Helps keep unwanted content out of your smartphone
Locate	Locates your device quickly via GPS	Helps recover lost, stolen, or misplaced devices
Lock	Helps prevent access to your mobile device	Helps prevent personal content from being exposed to the person in possession of the mobile device
Remotely Wipe Data	Preserves privacy	Allows you to wipe all contacts, photos, calendars, text messages, browsing history, and SD card content
Backup and Restore Mobile Data	Preserves irreplaceable personal information	Makes a restorable copy of your content in the event that you need a new mobile device
Web Protection	Actively checks web pages in real-time	Helps block potential phishing sites, browser exploits, and malicious links



Product Codes

Intel Part Language	MMID	PRODUCT CODE	PRODUCT NAME
English	947939	BKCMABV1YRENG	McAfee® AntiVirus Physical Activation Card, 1-Year 100-pack (English) C
French	947942	BKCMABV1YRFRN	McAfee® AntiVirus Physical Activation Card, 1-Year 100-pack (French) C
Portuguese	947043	BKCMABV1BYRPORLA	McAfee® Antivirus Physical Activation Card, 1-Year 100-pack (Portuguese Latin America) C
Spanish	947044	BKCMABV1BYRSPNLA	McAfee® Antivirus Physical Activation Card, 1-Year 100-pack (Spanish Latin America) C
Virtual Activation Card	948058	MCAFEEAV1PC	McAfee® Antivirus Virtual Activation Card, 1-Year (All Supported Languages)
English	936773	BKCMABV1YRENG	McAfee® AntiVirus Plus Physical Activation Card, 1-Year 100-pack (English) C
French	940925	BKCMABV1YRFRN	McAfee® AntiVirus Plus Physical Activation Card, 1-Year 100-pack (French) C
Portuguese	940926	BKCMABV1YRPORLA	McAfee® Antivirus Plus Physical Activation Card, 1-Year 100-pack (Portuguese Latin America) C
Spanish	940927	BKCMABV1YRSPNLA	McAfee® Antivirus Plus Physical Activation Card, 1-Year 100-pack (Spanish Latin America) C
Virtual Activation Card	926861	MCAFEEANTIVIRUS	McAfee® Antivirus Plus Virtual Activation Card, 1-Year (All Supported Languages)
English	939542	BKCMIS1YRENG	McAfee® Internet Security Physical Activation Card, 1-Year 100-pack (English) C
French	939546	BKCMIS1YRFR	McAfee® Internet Security Physical Activation Card, 1-Year 100-pack (French) C
Portuguese	939545	BKCMIS1YRPORLA	McAfee® Internet Security Physical Activation Card, 1-Year 100-pack (Portuguese Latin American) C
Spanish	939850	BKCMIS1YRSPNLA	McAfee® Internet Security Physical Activation Card, 1-Year 100-pack (Spanish Latin American) C
Virtual Activation Card	940035	MCAFEEINETSEC	McAfee® Internet Security Virtual Activation Card, 1-Year (All supported languages)
English	931560	BKCMLS1YRENG	McAfee® LiveSafe™ Physical Activation Card, 1-Year 100-pack (English) C
French	944176	BKCMLS1YRFRN	McAfee® LiveSafe™ Physical Activation Card, 1-Year 100-pack (French) C
Portuguese	944184	BKCMLS1YRPORLA	McAfee® LiveSafe™ Physical Activation Card, 1-Year 100-pack (Portuguese Latin America) C
Spanish	944186	BKCMLS1YRSPNLA	McAfee® LiveSafe™ Physical Activation Card, 1-Year 100-pack (Spanish Latin America) C
Virtual Activation Card	933782	MCAFEEELIVESAFE	McAfee® LiveSafe™ Virtual Activation Card, 1-Year (All Supported Languages)
English	942238	BKCMMS1YRENG	McAfee® Mobile Security Physical Activation Card, 1-year 100-pack (English) C
French	940933	BKCMMS1YRFRN	McAfee® Mobile Security Physical Activation Card, 1-year 100-pack (French) C
Portuguese	942336	BKCMMS1YRPORLA	McAfee® Mobile Security Physical Activation Card, 1-year 100-pack (Brazilian Portuguese) C
Spanish	940932	BKCMMS1YRSPNLA	McAfee® Mobile Security Physical Activation Card, 1-year 100-pack (Spanish – Latin American) C
Virtual Activation Card	931606	MCAFEEEMOBILESEC	McAfee® Mobile Security Virtual Activation Card, 1-Year (All Supported Languages)
Virtual Activation Card	943526	MCAFEEEMMS6MN	McAfee® Mobile Security Virtual Activation Card, 6-Month (English only)
English	946124	BKCMSSB1YRENG	McAfee® Small Business Security Physical Activation Card, 1-Year 100-pack (English) C
French	946129	BKCMSSB1YRFR	McAfee® Small Business Security Physical Activation Card, 1-Year 100-pack (French) C
Portuguese	946127	BKCMSSB1YRPORLA	McAfee® Small Business Security Physical Activation Card, 1-Year 100-pack (Portuguese Latin America) C
Spanish	946126	BKCMSSB1YRSPNLA	McAfee® Small Business Security Physical Activation Card, 1-Year 100-pack (Spanish Latin America) C
Virtual Activation Card	946669	MCAFEESECSMLBIZ	McAfee® Small Business Security Virtual Activation Card, 1-Year (All Supported Languages)



For more information, visit www.intel.com/McAfee-Reseller

** Unlimited licenses are for all supported devices owned by you or your business for the duration of your subscription. Not all features are available for all operating systems; see system requirements for supported devices.

No system can provide absolute security under all conditions. Requires an enabled chipset, BIOS, firmware, and software. Consult your system manufacturer more information.

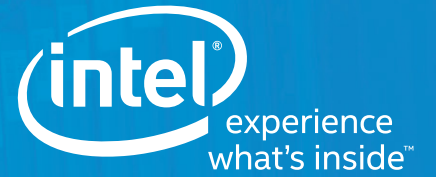
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INTEL[®] SOLID STATE DRIVES



INTEL® SOLID STATE DRIVES

Intel Corporation manufactures industry leading solid state drives targeting data center, embedded, professional, and consumer market segments.

INTEL® SOLID STATE DRIVES

CONSUMER FAMILY

Impressive performance with NVMe*/PCIe* and SATA for enthusiasts and mainstream consumers.

PROFESSIONAL FAMILY

Enhanced security and remote manageability with vPro™ integration for the corporate client.

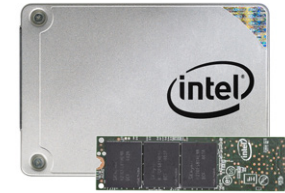
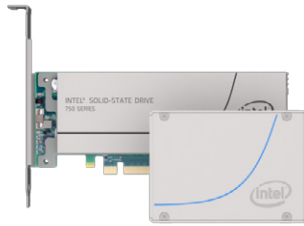
EMBEDDED FAMILY

Low power, lower capacities all with Intel reliability for IOT and embedded applications.

DATA CENTER FAMILY

Consistently amazing performance for NVMe*/PCIe* and SATA with broad industry compatibility, and robust enterprise RAS features.

INTEL® SOLID STATE DRIVE CONSUMER FAMILY



INTEL® SSD	INTEL® SSD 750 SERIES	INTEL® SSD 600p SERIES	INTEL® SSD 540s SERIES
USES	Highest-performance Intel® client SSD	Verticals: PCs – notebooks, desktops, NUCs, Embedded applications – ATMs, digital signage Uses: Everyday computing, Gaming, Mobile computing	For everyday computing, gaming, and mobile computing in notebooks, desktops, NUCs, and embedded applications (ATMs, digital signage)
INTERFACE	PCI Express* 3.0, NVMe Express*	PCI Express* 3.0, NVMe Express*	SATA 6 Gb/s
FORM FACTOR	AIC / 2.5" (SFF-8639)	M.2 (80mm)	2.5" / M.2
CAPACITIES	1.20 TB / 800 GB / 400 GB	1024GB, 512GB, 256GB, 128GB	2.5": 120 GB / 180 GB / 240 GB / 360 GB / 480 GB / 1 TB M.2: 120 GB / 180 GB / 240 GB / 360 GB / 480 GB / 1 TB (double-sided)
MAXIMUM RANDOM PERFORMANCE	Reads: up to 460K IOPS ^{1c, 2} Writes: up to 290K IOPS ^{1c}	Reads up to: 100K IOPS ^{1c, 2} Writes up to: 90K IOPS ^{1c}	Reads: Up to 90K IOPS ^{1c, 2} Writes: Up to 80K IOPS ^{1c}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: up to 2500 MB/s ^{1c} Writes: up to 1200 MB/s ^{1c}	Reads up to: 1700 MB/s ^{1c} Writes up to: 600 MB/s ^{1c}	Reads: Up to 540K IOPS ^{1c} Writes: Up to 480K IOPS ^{1c}
SECURITY	End-to-end data protection ³ AES 256-bit encryption	AES 256b Encryption	AES – 256 bit encryption
ENDURANCE	40 GB writes per day ^{1c} Up to 219 TBW (Terabytes Written) ^{1c}	72TBW (40GB DWPD) ^{1c}	Up to 40 GB written per day for 5 years ^{1c}
WARRANTY	5 year limited	5 year limited	5 year limited

Intel® Data Migration Software

- Transfer operating system, applications, and files from an old HDD or SSD to a new Intel® Solid State Drive⁴
- Easy to use
- Free

Download now at www.intel.com/go/ssdinstallation

Intel® SSD Toolbox v3.3.14

- Update Intel® SSD firmware and Intel® drivers on host PC
- Optimize PC configuration for Intel SSDs, run drive diagnostics, and Secure Erase
- View SMART attributes, such as host writes and media wear out
- Supported in multiple languages

Download now at www.intel.com/go/ssdtoolbox

INTEL® SOLID STATE DRIVE PROFESSIONAL FAMILY



INTEL® SSD INTEL® SSD PRO 6000p SERIES

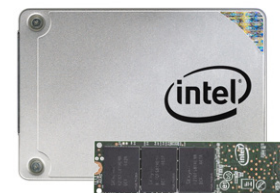
INTEL® SSD PRO 5400s SERIES

INTEL® SSD PRO 2500 SERIES

USES	Verticals: Corporate IT, Managed client, Workstation Applications Thin and light form factors: Ultrabook™, business tablets, 2-in-1s, Desktop and all-in-ones, Managed mini-PCs / Intel NUC	Verticals: Corporate IT, Managed client, Workstation Applications Thin and light form factors: Ultrabook™, business tablets, 2-in-1s, Desktop and all-in-ones, Managed mini-PCs / Intel NUC	Next-generation security and manageability
INTERFACE	PCI Express* 3.0, NVMe Express*	SATA 6Gbps	SATA 6 Gb/s
FORM FACTOR	M.2 (80mm)	2.5", M.2 (80mm)	M.2 (80mm)
CAPACITIES	1024GB, 512GB, 256GB, 128GB	1TB, 480GB, 360GB, 240GB, 180GB, 120GB	360 GB / 240 GB / 180 GB
MAXIMUM RANDOM PERFORMANCE	Reads up to: 100K IOPS ^{1c, 2} Writes up to: 90K IOPS ^{1c}	Reads: Up to 84K IOPS ^{1c, 2} Writes: Up to 85K IOPS ^{1c}	Reads: up to 48K IOPS ^{1c, 2} Writes: up to 80K IOPS ^{1c}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads up to: 1700 MB/s ^{1c} Writes up to: 600 MB/s ^{1c}	Reads: 560 MB/s ^{1c} Writes: 480 MB/s ^{1c}	Reads: up to 540 MB/s ^{1c} Writes: up to 490 MB/s ^{1c}
SECURITY	AES 256b Encryption, OPAL 2.0 features, eDrive capable	AES 256b Encryption, POAL c2.0 features, eDrive capable	End-to-end data protection ³ AES 256-bit encryption, OPAL v2.0, eDrive
ENDURANCE	72TBW (40GB DWPD) ^{1c}	Up to 40 GB per day for 5 years ^{1c}	Up to 20 GB per day for 5 years ^{1c}
WARRANTY	5 year limited	5 year limited	5 year limited



INTEL® SOLID STATE DRIVE EMBEDDED FAMILY

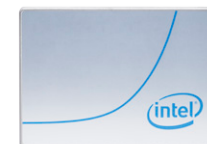


INTEL® SSD	INTEL® SSD E 6000p SERIES	INTEL® SSD E 5420s SERIES	INTEL® SSD E 5400s SERIES
USES	Verticals: Embedded IOT applications – ATMs, digital signage, POS, Kiosk, Vending, NUC	Verticals: Embedded IOT applications – ATMs, digital signage, POS, Kiosk, Vending, NUC	Verticals: Embedded IOT applications – ATMs, digital signage, POS, Kiosk, Vending, NUC
INTERFACE	PCI Express* 3.0, NVMe Express*	SATA 6Gbp/s	SATA 6Gbp/s
FORM FACTOR	M.2 (80mm)	2.5", M.2 (80mm)	2.5", M.2 (80mm)
CAPACITIES (MB)	256GB, 128GB	2.5" - 240GB M.2 (80mm) - 150GB	2.5" - 180GB, 120GB, 80GB M.2 (80mm) - 180GB, 120GB, 120GB, 80GB, 48GB
MAXIMUM RANDOM PERFORMANCE	Reads up to: 80K IOPS ^{1c,2} Writes up to: 70K IOPS ^{1c}	Reads: Up to 65k IOPS ^{1c,2} Writes: Up to 20K IOPS ^{1c}	Reads: Up to 90K IOPS ^{1c,2} Writes: Up to 80K IOPS ^{1c}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads up to: 1600 MB/s ^{1c} Writes up to: 600 MB/s ^{1c}	Reads: Up to 450 MB/s ^{1c} Writes: Up to 450 MB/s ^{1c}	Reads: Up to 540 MB ^{1c} Writes: 480MB/s ^{1c}
SECURITY	AES 256b Encryption	End-to-end Data Protection AES 256b Encryption	AES 256b Encryption
ENDURANCE	72TBW (40GB DWPD) ^{1c}	Up to 20 GB DWPD ^{1c}	Up to 40 GB per day for 5 years ^{1c}
WARRANTY	5 year limited	5 year limited	5 year limited

INTEL® SOLID STATE DRIVE DATA CENTER FAMILY

Intel® Solid State Drives for Enterprise and Data Center Applications

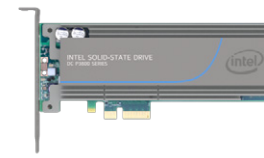
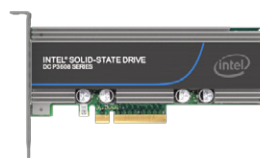
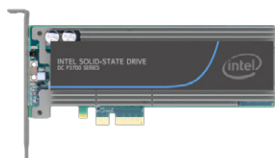
The Intel® SSD Data Center Family for PCI Express® brings high-storage performance directly to the server CPU through the PCIe bus. At up to 2 gigabytes per second (GB/s) sequential read and 1 GB/s sequential write bandwidth, storage throughput is increased up to 5X faster than previous Intel® SATA 6 Gb/s SSDs.⁷



INTEL® SSD	INTEL® SSD DC D3700	INTEL® SSD DC D3600
USES	High availability Storage System Enterprise mission critical applications	High availability Storage System Enterprise mission critical applications
INTERFACE	PCI Express* 3.0, NVM Express*	PCI Express* 3.0, NVM Express*
FORM FACTOR	2.5"(U.2)	2.5"(U.2)
CAPACITIES (MB)	1.6TB, 800GB	2TB, 1TB
MAXIMUM RANDOM PERFORMANCE	Reads: up to 470K IOPS ^{1b,2} Writes: up to 95K IOPS ^{1b}	Reads: Up to 470K IOPS ^{1b,2} Writes: Up to 30K IOPS ^{1b}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: Up to 2100 MB/s ^{1b} Writes: Up to 1500 MB/s ^{1b}	Reads: Up to 2100 MB/s ^{1b} Writes: Up to 1500 MB/s ^{1b}
SECURITY	End-to-end Data Protection ³	End-to-end Data Protection ³
ENDURANCE	1.0TB: 5.475 PBW ^{1b,4} 2.0TB: 10.95 PBW ^{1b,4} (10 DWPD)	1.0TB: 5.475 PBW ^{1b,4} 2.0TB: 10.95 PBW ^{1b,4} (3 DWPD)
WARRANTY	5 year limited	5 year limited

Intel® Solid State Drives for Enterprise and Data Center Applications

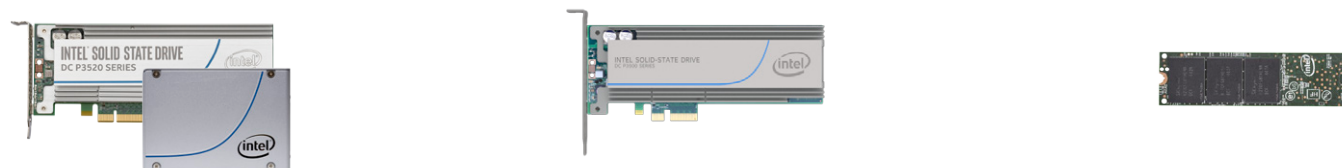
The Intel® SSD Data Center Family for PCI Express* brings high-storage performance directly to the server CPU through the PCIe* bus. At up to 2 gigabytes per second (GB/s) sequential read and 1 GB/s sequential write bandwidth, storage throughput is increased up to 5X faster than previous Intel® SATA 6 Gb/s SSDs.⁷



INTEL® SSD	INTEL® SSD DC P3700 SERIES	INTEL® SSD DC P3608 SERIES	INTEL® SSD DC P3600 SERIES
USES	Exceptional performance for demanding workloads	Extreme Performance. Extra Ordinary Capacity	Mid-Endurance. Exceptional performance for mixed workloads
INTERFACE	PCIe* 3.0, NVMe*	PCIe 3.0, x8 NVMe*	PCIe* 3.0, NVMe*
FORM FACTOR	AIC (2.5" SKU Available)	AIC	AIC (2.5" SKU Available)
CAPACITIES	2.5": 2 TB / 1.60 TB / 800 GB / 400 GB AIC: 2 TB / 1.60 TB / 800 GB / 400 GB	4 TB, 3.2 TB, 1.6 TB	2.5": 2 TB / 1.60 TB / 1.20 TB / 800 GB / 400 GB AIC: 2 TB / 1.60 TB / 1.20 TB / 800 GB / 400 GB
MAXIMUM RANDOM PERFORMANCE	Reads: up to 460K IOPs ^{1b,2} Writes: up to 175K IOPs ^{1b}	Reads: up to 850K IOPs ^{1a,2} Writes: up to 150K IOPs ^{1a}	Reads: up to 450K IOPs ^{1b,2} Writes: up to 56K IOPs ^{1b}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: up to 2800 MB/s ^{1b} Writes: up to 1900 MB/s ^{1b}	Reads: up to 5000 MB/s ^{1a} Writes: up to 3000 MB/s ^{1a}	Reads: up to 2600 MB/s ^{1b} Writes: up to 1700 MB/s ^{1b}
SECURITY	End-to-end data protection ³ Power-loss data protection ³	End-to-end data protection ³ Power-loss data protection ³	End-to-end data protection ³ Power-loss data protection ³
ENDURANCE	17 drive writes per day ^{1b} Up to 62 PBW (Petabytes Written) ^{1b,4}	3 drive writes per day ^{1a} Up to 21.9 PBW (Petabytes Written) ^{1a,4}	3 drive writes per day ^{1b} Up to 10.95 PBW (Petabytes Written) ^{1b,4}
WARRANTY	5 year limited	5 year limited	5 year limited

Intel® Solid State Drives for Enterprise and Data Center Applications

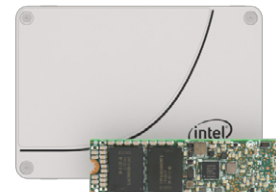
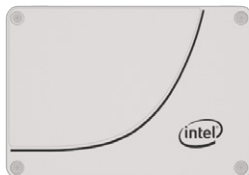
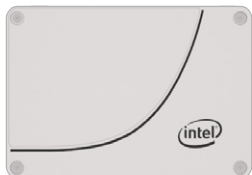
The Intel® SSD Data Center Family for PCI Express* brings high-storage performance directly to the server CPU through the PCIe* bus. At up to 2 gigabytes per second (GB/s) sequential read and 1 GB/s sequential write bandwidth, storage throughput is increased up to 5X faster than previous Intel® SATA 6 Gb/s SSDs.⁷



INTEL® SSD	INTEL® SSD DC P3520 SERIES	INTEL® SSD DC P3500 SERIES	INTEL® SSD DC P3100 SERIES
USES	Cloud, Database, Big data.	Standard Endurance. Exceptional performance for read-intensive workloads	Read intensive applications, boot drive
INTERFACE	PCIe* 3.0, NVMe*	PCIe* 3.0, NVMe*	PCIe* 3.0, NVMe*
FORM FACTOR	2.5"(U.2), x4 HHHL AIC	AIC (2.5" SKU Available)	M.2 (80mm)
CAPACITIES	2.5"/U.2: 2 TB / 1.20 TB / 450 GB AIC: 2.0 TB / 1.20 TB	2.5": 2 TB / 1.20 TB / 400 GB AIC: 2 TB / 1.20 TB / 400 GB	1024 GB, 512 GB, 256 GB, 128 GB
MAXIMUM RANDOM PERFORMANCE	Reads: up to 375K IOPs ^{1b, 2} Writes: up to 26K IOPs ^{1b}	Reads: up to 450K IOPs ^{1b, 2} Writes: up to 35K IOPs ^{1b}	Reads: up to 114K IOPs ^{1b, 2} Writes: up to 10K IOPs ^{1b}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: up to 1700 MB/s ^{1b} Writes: up to 1350 MB/s ^{1b}	Reads: up to 2500 MB/s ^{1b} Writes: up to 1700 MB/s ^{1b}	Reads: up to 1800 MB/s ^{1b} Writes: up to 175 MB/s ^{1b}
SECURITY	End-to-end data protection ³ Power-loss data protection ³	End-to-end data protection ³ Power-loss data protection ³	AES 256-bit encryption
ENDURANCE	0.70 drive writes per day Up to 960 TBW (Terabytes Written)	0.30 drive writes per day ^{1b} Up to 1095 TBW (Terabytes Written) ^{1b}	Up to 0.5 drive writes per day ^{1b}
WARRANTY	5 year limited	5 year limited	5 year limited

Intel® Solid State Drives for Enterprise and Data Center Applications

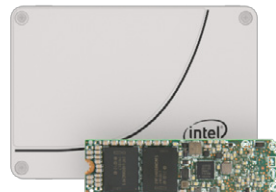
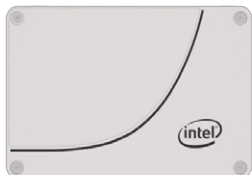
The Intel® SSD Data Center Family for SATA is designed for high endurance, extreme performance, and enhanced data protection.



INTEL® SSD	INTEL® SSD DC S3710 SERIES	INTEL® SSD DC S3610 SERIES	INTEL® SSD DC S3520 SERIES
USES	Optimized for read- and write-intensive applications	Optimized for mixed workloads	Verticals: Cloud & Embedded Workloads: Boot, Static web content; Low data rate operational databases & Analytics; Web server and SQL Logs; OS Paging; Media Streaming
INTERFACE	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
FORM FACTOR	2.5"	2.5" / 1.8"	2.5" / M.2 (80mm)
CAPACITIES	1.20 TB / 800 GB / 400 GB / 200 GB	2.5": 1.60 TB / 1.20 TB / 800 GB / 480 GB / 400 GB / 200 GB / 100 GB 1.8": 800 GB / 400 GB / 200 GB	2.5": 1.6 TB, 1.2 TB, 960 GB, 800 GB, 480 GB, 240 GB, 150 GB M.2 (80mm): 960 GB, 760 GB, 480 GB, 240 GB, 150 GB (M.2 form factor launch/available mid Q4)
MAXIMUM RANDOM PERFORMANCE	Reads: up to 85K IOPs ^{1b,2} Writes: up to 45K IOPs ^{1b}	Reads: up to 85K IOPs ^{1b,2} Writes: up to 28K IOPs ^{1b}	Reads: up to 67.5K IOPs ^{1b,2} Writes: up to 17.5K IOPs ^{1b}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: up to 550 MB/s ^{1b} Writes: up to 520 MB/s ^{1b}	Reads: up to 550 MB/s ^{1b} Writes: up to 520 MB/s ^{1b}	Reads: up to 450 MB/s ^{1b} Writes: up to 380 MB/s ^{1b}
SECURITY	End-to-end data protection ³ Power-loss data protection ³ AES 256-bit encryption	End-to-end data protection ³ Power-loss data protection ³ AES 256-bit encryption	End-to-end data protection ³ Power-loss data protection ³ AES 256-bit encryption
ENDURANCE	10 drive writes per day ^{1b} Up to 24.30 PBW (Petabytes Written) ^{1b,4}	3 drive writes per day ^{1b} Up to 10.95 PBW (Petabytes Written) ^{1b,4}	0.6 drive writes per day ^{1b}
WARRANTY	5 year limited	5 year limited	5 year limited

Intel® Solid State Drives for Enterprise and Data Center Applications

The Intel® SSD Data Center Family for SATA is designed for high endurance, extreme performance, and enhanced data protection.



INTEL® SSD	INTEL® SSD DC S3510 SERIES	INTEL® SSD DC S3500 SERIES	INTEL® SSD DC S3100 SERIES
USES		SATA SSD with fast, consistent performance for read-intensive applications	Verticals: Cloud, Database (Cassandra, No SQL) Workloads: Boot OS, Edge Cache, Search Index
INTERFACE	SATA 6Gb/s	SATA 6 Gb/s, ATA8-ACS2	SATA 6Gbps
FORM FACTOR	2.5"	2.5" / M.2 (80mm)	2.5"
CAPACITIES	1.6TB / 1.2TB / 800GB / 480GB / 240GB / 120GB / 80GB	2.5": 1.60 TB / 1.20 TB / 800 GB / 600 GB / 480 GB / 300 GB / 240 GB / 160 GB / 120 GB / 80 GB M.2 (80mm): 340 GB / 120 GB / 80 GB	1TB, 480GB, 240GB, 180GB
MAXIMUM RANDOM PERFORMANCE	Reads - Up to 68,000 IOPS ^{1b, 2} Writes - Up to 20,000 IOPS ^{1b}	Reads: up to 75K IOPS ^{1b, 2} Writes: up to 11.5K IOPS ^{1b}	Reads: Up to 59K IOPS ^{1b, 2} Writes: Up to 4.7K IOPS ^{1b}
MAXIMUM SEQUENTIAL PERFORMANCE	Reads - Up to 500 MB/s ^{1b} Writes - Up to 460 MB/s ^{1b}	Reads: up to 500 MB/s ^{1b} Writes: up to 450 MB/s ^{1b}	Reads: Up to 535MB/s ^{1b} Writes: Up to 118 MB/s ^{1b}
SECURITY	End-to-End data protection ³ power-loss data protection ³ AES 256-bit Encryption	End-to-end data protection ³ Power-loss data protection ³ AES 256-bit encryption	AES 256b Encryption
ENDURANCE	Up to 880TBW ^{1b}	Up to 450 TB (4 KB random writes) ^{1b}	180GB: 72TBW (.22 DWPD) ^{1b} 240GB: 72TBW (.17 DWPD) ^{1b} 480GB: 72TBW (.08 DWPD) ^{1b} 1.0TB: 72TBW (.05 DWPD) ^{1b}
WARRANTY	5 year limited warranty	5 year limited or E9=1 wear out indicator	5 year limited

INTEL® SOLID STATE DRIVE PRODUCT SELECTION GUIDE

Data Center Family (PCIe*) SSDs

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD DC D3700 Series	1.60 TB	SSDPD2MD016T401	20nm Dual Port HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		800 GB	SSDPD2MD800G401	20nm Dual Port HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
	Intel® SSD DC D3600 Series	2.00 TB	SSDPD2ME020T401	20nm Dual Port HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		1.00 TB	SSDPD2ME010T401	20nm Dual Port HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
	Intel® SSD DC P3700 Series	2.00 TB	SSDPEDMD020T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		1.60 TB	SSDPEDMD016T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		800 GB	SSDPEDMD800G401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		400 GB	SSDPEDMD400G401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		2.00 TB	SSDPE2MD020T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		1.60 TB	SSDPE2MD016T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		800 GB	SSDPE2MD800G401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		400 GB	SSDPE2MD400G401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
	Intel® SSD DC P3608 Series	4.00 TB	SSDPECME040T401	20nm HET / ½ Height PCI Express* 3.0, x8	OEM box	SSD only	1
		3.20 TB	SSDPECME032T401	20nm HET / ½ Height PCI Express* 3.0, x8	OEM box	SSD only	1
		1.60 TB	SSDPECME016T401	20nm HET / ½ Height PCI Express* 3.0, x8	OEM box	SSD only	1
	Intel® SSD DC P3600 Series	2.00 TB	SSDPEDME020T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		1.60 TB	SSDPEDME016T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDPEDME012T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		800 GB	SSDPEDME800G401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		400 GB	SSDPEDME400G401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		2.00 TB	SSDPE2ME020T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		1.60 TB	SSDPE2ME016T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDPE2ME012T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		800 GB	SSDPE2ME800G401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		400 GB	SSDPE2ME400G401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
	Intel® SSD DC P3520 Series	2.00 TB	SSDPEDMX020T701	3D1, MLC / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDPEDMX012T701	3D1, MLC / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		2.00 TB	SSDPE2MX020T701	3D1, MLC / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDPE2MX012T701	3D1, MLC / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1



		450 GB	SSDPE2MX450G701	3D1, MLC / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
	Intel® SSD DC P3500 Series	2.00 TB	SSDPEDMX020T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDPEDMX012T401	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		400 GB	SSDPEDMX400G40	20nm HET / ½ Height PCI Express* 3.0	OEM box	SSD only	1
		2.00 TB	SSDPE2MX020T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDPE2MX012T401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
		400 GB	SSDPE2MX400G401	20nm HET / 2.5" / 15mm PCI Express* 3.0	OEM box	SSD only	1
✓	Intel® SSD DC P3100 Series	1024 GB	SSDPEKKA010TG701	3D1, TLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
✓		512 GB	SSDPEKKA512G701	3D1, TLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
✓		256 GB	SSDPEKKA256G701	3D1, TLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
✓		128 GB	SSDPEKKA128G701	3D1, TLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1

Data Center Family (SATA) SSDs

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD DC S3710 Series	1.20 TB	SSDSC2BA012T401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		800 GB	SSDSC2BA800G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		400 GB	SSDSC2BA400G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		200 GB	SSDSC2BA200G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
	Intel® SSD DC S3610 Series	1.60 TB	SSDSC2BX016T401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		1.20 TB	SSDSC2BX012T401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		800 GB	SSDSC2BX800G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		480 GB	SSDSC2BX480G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		400 GB	SSDSC2BX400G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		200 GB	SSDSC2BX200G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		100 GB	SSDSC2BX100G401	20nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		800 GB	SSDSC1BG800G401	20nm HET MLC / 1.8" / 7mm	OEM box	SSD only	1
		400 GB	SSDSC1BG400G401	20nm HET MLC / 1.8" / 7mm	OEM box	SSD only	1
	200 GB	SSDSC1BG200G401	20nm HET MLC / 1.8" / 7mm	OEM box	SSD only	1	
	Intel® SSD DC S3520 Series	1.60 TB	SSDSC2BB016T701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		1.20 TB	SSDSC2BB012T701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		960 GB	SSDSC2BB960G701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		800 GB	SSDSC2BB800G701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		480 GB	SSDSC2BB480G701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		240 GB	SSDSC2BB240G701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		150 GB	SSDSC2BB150G701	3D1, MLC / 2.5" / 7mm PCI Express* 3.0	OEM box	SSD only	1
		960 GB	SSDSCKJB960G701	3D1, MLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
		760 GB	SSDSCKJB760G701	3D1, MLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1



	480 GB	SSDSCKJB480G701	3D1, MLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
	240 GB	SSDSCKJB240G701	3D1, MLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
	150 GB	SSDSCKJB150G701	3D1, MLC / M.2 / 80mm PCI Express* 3.0	OEM box	SSD only	1
Intel® SSD DC S3510 Series	1.60 TB	SSDSC2BB016T601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
	1.20 TB	SSDSC2BB012T601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
	800 GB	SSDSC2BB800G601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
	480 GB	SSDSC2BB480G601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
	240 GB	SSDSC2BB240G601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
	120 GB	SSDSC2BB120G601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
	80 GB	SSDSC2BB080G601	20nm HET / 2.5" / 7mm	OEM box	SSD only	1
Intel® SSD DC S3500 Series	1.60 TB	SSDSC2BB016T401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	1.20 TB	SSDSC2BB012T401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	800 GB	SSDSC2BB800G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	600 GB	SSDSC2BB600G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	480 GB	SSDSC2BB480G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	300 GB	SSDSC2BB300G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	240 GB	SSDSC2BB240G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	160 GB	SSDSC2BB160G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	120 GB	SSDSC2BB120G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	80 GB	SSDSC2BB080G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
	340 GB	SSDSCKHB340G401	20nm MLC / M.2 / 80mm	OEM box	SSD only	1
	120 GB	SSDSCKHB120G401	20nm MLC / M.2 / 80mm	OEM box	SSD only	1
	80 GB	SSDSCKHB080G401	20nm MLC / M.2 / 80mm	OEM box	SSD only	1

Professional Family SSDs

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD Pro 6000p Series	1024 GB	SSDPEKKF010T7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		512 GB	SSDPEKKF512G7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		256 GB	SSDPEKKF256G7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		128 GB	SSDPEKKF128G7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
	Intel® SSD Pro 5400s Series	1.00 TB	SSDSC2KF010X6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		480 GB	SSDSC2KF480H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		360 GB	SSDSC2KF360H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		240 GB	SSDSC2KF240H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		180 GB	SSDSC2KF180H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		120 GB	SSDSC2KF120H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		1.00 TB	SSDSCKKF010X6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1



	480 GB	SSDSCKKF480H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
	360 GB	SSDSCKKF360H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
	240 GB	SSDSCKKF240H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
	180 GB	SSDSCKKF180H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
	120 GB	SSDSCKKF120H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
Intel® SSD Pro 2500 Series	360 GB	SSDSCKJF360H601	16nm MLC / M.2 / 80mm	OEM box	SSD only	1
	240 GB	SSDSCKJF240H601	16nm MLC / M.2 / 80mm	OEM box	SSD only	1
	180 GB	SSDSCKJF180H601	16nm MLC / M.2 / 80mm	OEM box	SSD only	1

Consumer Family SSDs

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD 750 Series	1.20 TB	SSDPEDMW012T4X1	20nm MLC / ½ Height, AIC, PCI Express* 3.0	Reseller box	SSD and extra 1/2 height bracket	1
		800 GB	SSDPEDMW800G4X1	20nm MLC / ½ Height, AIC, PCI Express* 3.0	Reseller box	SSD and extra 1/2 height bracket	1
		400 GB	SSDPEDMW400G4X1	20nm MLC / ½ Height, AIC, PCI Express* 3.0	Reseller box	SSD and extra 1/2 height bracket	1
		1.20 TB	SSDPE2MW012T4X1	20nm MLC / 2.5" / 15mm PCI Express* 3.0	Reseller box	SSD and U.2 cable	1
		800 GB	SSDPE2MW800G4X1	20nm MLC / 2.5" / 15mm PCI Express* 3.0	Reseller box	SSD and U.2 cable	1
		400 GB	SSDPE2MW400G4X1	20nm MLC / 2.5" / 15mm PCI Express* 3.0	Reseller box	SSD and U.2 cable	1
		1.20 TB	SSDPE2MW012T4M2	20nm MLC / 2.5" / 15mm PCI Express* 3.0	Reseller box	SSD and M.2 cable	1
		800 GB	SSDPE2MW800G4M2	20nm MLC / 2.5" / 15mm PCI Express* 3.0	Reseller box	SSD and M.2 cable	1
	Intel® SSD 600p Series	400 GB	SSDPE2MW400G4M2	20nm MLC / 2.5" / 15mm PCI Express* 3.0	Reseller box	SSD and M.2 cable	1
		1024 GB	SSDPEKKW010T7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		512 GB	SSDPEKKW512G7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		256 GB	SSDPEKKW256G7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
	Intel® SSD 540s Series	128 GB	SSDPEKKW128G7X1	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		1.00 TB	SSDSC2KW010X6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		480 GB	SSDSC2KW480H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		360 GB	SSDSC2KW360H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		240 GB	SSDSC2KW240H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		180 GB	SSDSC2KW180H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		120 GB	SSDSC2KW120H6X1	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		1.00 TB	SSDSCKKW010X6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		480 GB	SSDSCKKW480H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		360 GB	SSDSCKKW360H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		240 GB	SSDSCKKW240H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		180 GB	SSDSCKKW180H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		120 GB	SSDSCKKW120H6X1	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1



Embedded Family SSDs

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD E 6000p Series	256 GB	SSDPEKKR256G7XN	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
		128 GB	SSDPEKKR128G7XN	3D1, TLC / M.2 / 80mm PCI Express* 3.0	Reseller box	SSD only	1
	Intel® SSD E 5420s Series	240 GB	SSDSC2BR240G7XA	3D MLC / SATA / U.2	OEM box	SSD only	1
		150 GB	SSDSC2JR150G7XA	3D MLC / SATA / M.2	OEM box	SSD only	1
	Intel® SSD E 5400s Series	180 GB	SSDSC2KR180H6XN	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		120 GB	SSDSC2KR120H6XN	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		80 GB	SSDSC2KR080H6XN	16nm TLC / 2.5" / 7mm	Reseller box	SSD only	1
		180 GB	SSDSC2KR180H6XN	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		120 GB	SSDSC2KR120H6XN	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		80 GB	SSDSC2KR080H6XN	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1
		48 GB	SSDSC2KR048H6XN	16nm TLC / M.2 / 80mm	Reseller box	SSD only	1

For more information, visit www.intel.com/ssd

¹ Performance varies by capacity. Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. System configurations:

^{1a} Intel® Core™ i7-4770 CPU at 3.4 GHz, 8GB DDR3 at 1600 MHz, Intel® SSD DC P3608 Series 1.6TB

^{1b} Intel Core i7-3770K CPU @ 3.50GHz, 8GB of system memory, Windows¹ Server 2012, IOMeter. Random performance is collected with 4 workers each with 32 QD. Average RMS Active write power measured at max bandwidth

^{1c} Performance measured by Intel using Iometer 1.1.0 with queue depth 32. Measurements are performed on 8 GB of Logical Block Address (LBA) range on a full SSD. System configuration: Intel® Core i7-5960X processor, Intel® X99 chipset, PC2666 16GB DRAM.

² Random 4 KB reads. Performance specifications apply to both compressible and non-compressible data.

³ Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com

⁴ 1 PB = 1000 TeraBytes

⁵ Desktop installation kit contents: SATA signal cables, screws, installation guide, and warranty documentation.

All products and dates specified are preliminary based on current expectations and are subject to change without notice.

Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

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INTEL® DESKTOP PROCESSORS

INTEL® DESKTOP PROCESSORS

New Desktops with Intel Inside®
are the best way to fully embrace
your digital world.

6TH GENERATION INTEL® CORE™ DESKTOP PROCESSORS

The new standard for PC performance—6th generation Intel® Core™ processors! Our blazing fast, feature packed processor family with built-in security is ready to take your productivity, creativity and 3D gaming to the next level. The 6th generation Intel® Core™ processors empower you to unleash your imagination and explore the possibilities.

6TH GENERATION INTEL® CORE™ DESKTOP PROCESSOR PRODUCT

The 6th Gen Intel® Core™ Desktop processor family are Intel's newest wave of 14nm processors. Along with the Intel® 100 Series chipsets, they deliver a leap in performance provide stunning visuals and enable amazing user experiences when paired with Windows® 10.

INTEL® BOXED THERMAL SOLUTIONS

Intel® Thermal Solutions can be implemented to meet diverse needs. The air cooling solutions can be implemented to meet value and mainstream performance needs. Liquid cooling solutions can be implemented in environments where processor overclocking is required. Low profile, air cooling solutions can be implemented for compatible All-in-One and Mini PC desktop systems.

6TH GENERATION INTEL[®] CORE[™] DESKTOP PROCESSOR



A Powerful and Scalable Solution for Next-Generation Desktop PC's

Our blazing fast, feature packed processor family with built-in security is ready to take your productivity, creativity and 3D gaming to the next level. And, by enabling new exciting Windows[®] 10 features, the 6th generation Intel[®] Core[™] processors empower you to unleash your imagination and explore the possibilities.



Advanced Security

Hardware strengthening of your identify.

Amazing Experiences

Immersive experiences with Intel[®] RealSense[™] technology.

New Architecture on 14nm

Intel's latest technology for Desktop.

Scalable Performance

Enabling form factor and segment innovations.

More Ways to Connect

Increased system expandability.

Enhanced Over Clocking¹

Increased ability to fine-tune system performance.

Stunning Visual Performance

Immersive graphics and stunning 4K video.

¹ Features are present with select chipsets and processor combinations. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

* Other brands and names may be claimed as the property of others

6TH GENERATION INTEL® CORE™ DESKTOP PROCESSOR

A Powerful and Scalable Solution for Next-Generation Desktop PC's

The 6th Generation Intel Core processor family brings desktop PC to the next level of performance and computing with new architecture on 14 nanometres, scalable performance, enhanced overclocking, advanced security and stunning visual performance. The collective technology developments represent a massive change on the inside of the processor.

NEW ARCHITECTURE ON 14NM	SCALABLE PERFORMANCE	MORE WAYS TO CONNECT	ENHANCED ³ OVERCLOCKING	ADVANCED SECURITY	AMAZING EXPERIENCES	BETTER TOGETHER WITH WINDOWS* 10	STUNNING VISUAL PERFORMANCE
Intel's latest technology for Desktop	Enabling form factor and segment innovations	Increase system expandability	Increased ability to fine tune system performance	Hardware strengthening of your identify	Immersive experiences with Intel® RealSense™ technology	Transforming computing for consumers and business	Immersive graphics and stunning 4K video
<ul style="list-style-type: none"> With state-of-the-art Architecture and 14nm technology, the 6th Generation Core Processor family brings desktop PC to next level performance and experiences. 	<ul style="list-style-type: none"> Significant performance improvement compared to a 3-year old PC¹. Broad roadmap of Intel® Core i7, i5 and i3 brands to enable innovative desktop products to address the needs of desktop form factors and system price points. 	<ul style="list-style-type: none"> Intel® 100 Series Chipset offers more high speed I/O ports Supports PCI Express® 3.0 for devices that improve platform responsiveness and performance like the Intel® 750 SSD. Platform support for Intel® Thunderbolt™ and USB Type-C. 	<ul style="list-style-type: none"> New fine grain base clock control to give over-clockers greater capability to tune platforms to a high level. 	<ul style="list-style-type: none"> Biometric system login using Windows* Hello or Intel® True Key™ is enhanced on the 6th Generation Core DT based PC with Intel® RealSense™. Hardware enhancements helps strengthen Intel® IPT with MFA to improve the security of the system and improve ease of use. 	<ul style="list-style-type: none"> The Intel® RealSense™ camera enables usage models and applications that require 3D depth such as virtual green screen to remove your background while online streaming. 	<ul style="list-style-type: none"> Intel® 6th Generation Core processors with Windows 10 will deliver outstanding PC experience to consumer and business, including support for DirectX12 for better gaming and graphics experience, increased performance 	<ul style="list-style-type: none"> Processor graphics and video capabilities deliver mainstream graphics and video playback capabilities to business and consumer customers in 4K resolution, up to 3 monitors, and improved 3D gaming performance².

¹ Source: Intel Corporation. Projection based on est. SPECint*_rate_base2006 (8 copy rate) IC14 scores comparing Intel® Core™ i7-6700K to Intel® Core™ i7-3770K Processor.

² Source Intel Corporation. Projection based on SYSmark 2014 and 3DMark 11 scores comparing Intel® Core™ i7-6700T processor to Intel® Core™ i7-4785T processor. Results have been estimated or simulated using internal Intel analysis or architecture simulation or modeling, and provided for informational purposes. Any differences in your system hardware, software or configuration may affect your actual performance. Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. See Appendix for configurations

Features are present with select chipsets and processor combinations. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

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Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to <http://www.intel.com/performance>



INTEL® CORE™ i7 DESKTOP PROCESSOR X-SERIES PLATFORM



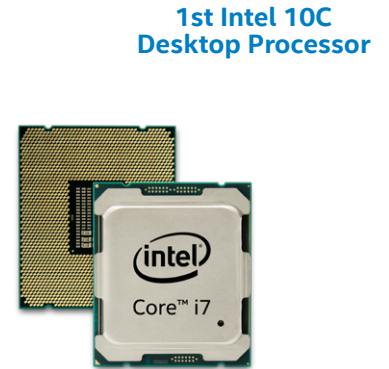
Intel® Core™ i7 X-Series Processors and Intel® X99 Chipset¹

Up to 10 Cores, 20 Way Multitask Processing. Full range Base Clock (BCLK) tuning granularity.
Ultimate platform for extreme gaming systems, intensive digital content creation and virtual reality usages.

- Fully unlocked for performance tuning
- Intel® Turbo Boost Max Technology 3.0
- Intel® Turbo Boost Technology 2.0
- Up to 25MB Intel® Smart Cache
- Up to 40 PCI Express* 3.0 lanes

Intel® X99 Chipset

- Processor Overclocking with Intel® Processor Extreme Edition and “K” SKUs
- PCI Express 3.0 storage support with Intel® Rapid Storage Technology
- Support for processor PCIe Express* 3.0 2x16 + 1x8 or 5x8



BRAND NAME AND PROCESSOR NUMBER ²	BASE FREQUENCY	MAX TURBO FREQUENCY ³	PCI EXPRESS* 3.0 LANES	MEMORY SPEED	TDP	SOCKET (LGA)
Intel® Core™ i7-6950X	3.0GHz	Up to 3.5GHz	40	4 channels DDR4-2400	140W	2011-v3
Intel® Core™ i7-6900K	3.2GHz	Up to 3.7GHz	40	4 channels DDR4-2400	140W	2011-v3
Intel® Core™ i7-6850K	3.6GHz	Up to 3.8GHz	40	4 channels DDR4-2400	140W	2011-v3
Intel® Core™ i7-6800K	3.4GHz	Up to 3.6GHz	28	4 channels DDR4-2400	140W	2011-v3

¹ Features are present with select chipsets and processor combinations. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

² NOTE: Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

³ Refers to the maximum single-core frequency that can be achieved with Intel® Turbo Boost Technology

* Other brands and names may be claimed as the property of others

UNLOCKED INTEL® CORE™ I7-6700K AND I5-6600K DESKTOP PROCESSOR PLATFORM

Intel® Core™ i7-6700K Processor and Intel® Z170 Chipset¹

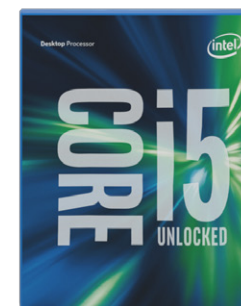
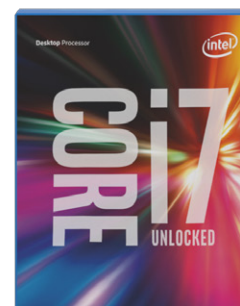
4.0 GHz base frequency, 4 Cores, 8 Threads. Full range Base Clock (BCLK) tuning granularity. DDR4 support for mainstream gaming systems.

- Fully unlocked for performance tuning
- Intel® Turbo Boost Technology 2.0
- Intel® HD Graphics 530 (1150 MHz)
- 8 MB Intel® Smart Cache
- 16 PCI Express* 3.0 lanes

Intel® Z170 Chipset

- Processor Overclocking with Intel® Processor “K” SKUs
- PCI Express 3.0 storage support with Intel® Rapid Storage Technology
- Support for processor PCIe Express* 3.0 1x16, 2x8, or 1x8 and 2x4

**4.0 GHZ ON
ALL 4 CORES**



BRAND NAME AND PROCESSOR NUMBER ²	BASE FREQUENCY	MAX TURBO FREQUENCY ³	PCI EXPRESS* 3.0 LANES	MEMORY SPEED	TDP	SOCKET (LGA)
Intel® Core™ i7-6700K	4.0 GHz	Up to 4.2 GHz	16	2 channels DDR4-2133 DDR3L-1600	91W	1151
Intel® Core™ i5-6600K	3.5 GHz	Up to 3.9 GHz	16	2 channels DDR4-2133 DDR3L-1600	91W	1151

¹ Features are present with select chipsets and processor combinations. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warrant, the operation of the processor beyond its specifications.

² NOTE: Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

³ Refers to the maximum single-core frequency that can be achieved with Intel® Turbo Boost Technology

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INTEL® 100 SERIES CHIPSET



FEATURES¹

	H110	H170	Z170	B150	Q150	Q170
Processor Support / Socket	LGA 1151	LGA 1151	LGA 1151	LGA 1151	LGA 1151	LGA 1151
Processor Overclocking	-	-	✓ ¹	-	-	-
Independent Display Support (digital ports/pipes)	3/2	3/3	3/3	3/3	3/3	3/3
Intel® Rapid Storage Technology	✓	✓	✓	✓	✓	✓
Intel® Rapid Storage Technology SATA RAID 0/1/5/10		✓	✓			✓
Intel® Rapid Storage Technology for PCIe Storage Driver		✓	✓			✓
Intel® Smart Response Technology	-	✓	✓	-	-	✓
Intel® Smart Connect Technology	-	-	-	-	-	-
Intel® Rapid Start Technology	-	-	-	-	-	-
Intel® Wireless Display	✓	✓	✓	✓	✓	✓
Intel® Platform Trust Technology	✓	✓	✓	✓	✓ (w/o Intel® TXT)	✓ (w/o Intel® TXT)
Intel® Device Protection Technology with Boot Guard	✓	✓	✓	✓	✓	✓
Processor PCI Express* 3.0 Configuration	1x16	1x16	1x16 or 2x8 or 1x8+2x4	1x16	1x16	1x16 or 2x8 or 1x8+2x4
Intel® ME Firmware SKU ²	Cons.	Cons./ Corp.	Cons.	Corp.	Corp.	Corp.
Intel® SIPP	-	-	-	-	✓	✓
Intel® vPro™ Technology	-	-	-	-	-	✓
Intel® Active Management Technology	-	-	-	-	-	✓
Intel® Standard Manageability	-	-	-	-	✓	✓
Intel® Small Business Advantage	-	✓	-	✓	✓	✓
Intel® Small Business Basics	✓	✓	-	✓	✓	✓
Total USB Ports (Max USB 3.0)	10 (4)	14 (8)	14 (10)	12 (6)	14 (8)	14 (10)
Total SATA Ports (Max 6 Gb/s)	4 (4)	6 (6)	6 (6)	6 (6)	6 (6)	6 (6)
Max PCI Express* Ports (Gen)	6 (2.0)	16 (3.0)	20 (3.0)	8 (3.0)	10 (3.0)	20 (3.0)
Max Intel® RST for PCIe Storage (x4 M.2 or x2 SATA Express)	0	2	3	0	0	3

¹ Features are present with select chipsets and processor combinations. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

All information provided here is subject to change without notice. Contact your Intel representative to obtain the latest Intel product specifications and roadmaps.

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6TH GENERATION INTEL® CORE™ DESKTOP PROCESSOR PRODUCTS

6th Generation Intel® Core™ Processor SKUs

Processor Number	Base Frequency (GHz) ¹	Total Cache	Cores/Threads	Memory Type	Memory Speed Support (DDR4/DDR3L)	Intel® Turbo Boost Technology maximum single core turbo frequency (GHz) ²	Unlocked ³	Graphics	Dynamic Frequency (MHz)	Integrated Memory Controller	TDP (W)	FMB	Intel Technologies					Intel® Device Protection with Boot Guard
													Intel® SIPP	Intel® vPro Technology	Intel® VT-d	Intel® TXT	AES-NI	
G4520	3.6	3M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 530	1050	2 ch	65	2015C			✓		✓	✓
G4500	3.5	3M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 530	1050	2 ch	65	2015C			✓		✓	✓
G4400	3.3	3M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 510	1050	2 ch	65	2015C			✓		✓	✓
G3920	2.9	2M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 510	950	2 ch	65	2015C			✓		✓	✓
G3900	2.8	2M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 510	950	2 ch	65	2015C			✓		✓	✓
Socket 1151																		
i3-6300T	3.3	4M	2/4	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 530	950	2 ch	35	2015A			✓		✓	✓
i3-6100T	3.2	3M	2/4	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 530	950	2 ch	35	2015A			✓		✓	✓
G4500T	3.0	3M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 530	950	2 ch	35	2015A			✓		✓	✓
G4400T	2.9	3M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 510	950	2 ch	35	2015A			✓		✓	✓
G3900T	2.6	2M	2/2	DDR4/DDR3L	2133/1600	N/A		Intel® HD Graphics 510	950	2 ch	35	2015A			✓		✓	✓





6th Generation Intel® Core™ Processor SKUs

Processor Number	Base Frequency (GHz) ¹	Total Cache	Cores/Threads	Memory Support (DDR4/DDR3L)	Intel® Turbo Boost Technology maximum single core turbo frequency (GHz) ²	Unlocked ³	Graphics	Dynamic Frequency (MHz)	Integrated Memory Controller	TDP (W)	FMB	Intel Technologies					Intel® Device Protection with Boot Guard
												Intel® SIPP	Intel® vPro Technology	Intel® VT-d	Intel® TXT	AES-NI	
i7-6700K	4.0	8M	4/8	DDR4 - 1866/2133 DDR3L - 1333/1600	Up to 4.2GHz	✓	Intel® HD Graphics 530	1150	2 ch	91	2015D			✓		✓	✓
i7-6700	3.4	8M	4/8	DDR4 - 1866/2133 DDR3L - 1333/1600	Up to 4GHz		Intel® HD Graphics 530	1150	2 ch	65	2015C	✓	✓	✓	✓	✓	✓
i5-6600K	3.5	6M	4/4	DDR4 - 1866/2133 DDR3L - 1333/1600	Up to 3.9GHz	✓	Intel® HD Graphics 530	1150	2 ch	91	2015D			✓		✓	✓
i5-6600	3.3	6M	4/4	DDR4 - 1866/2133 DDR3L - 1333/1600	Up to 3.9GHz		Intel® HD Graphics 530	1150	2 ch	65	2015C	✓	✓	✓	✓	✓	✓
i5-6500	3.2	6M	4/4	DDR4 - 1866/2133 DDR3L - 1333/1600	Up to 3.6GHz		Intel® HD Graphics 530	1050	2 ch	65	2015C	✓	✓	✓	✓	✓	✓
i5-6400	2.7	6M	4/4	DDR4 - 1866/2133 DDR3L - 1333/1600	Up to 3.3GHz		Intel® HD Graphics 530	950	2 ch	65	2015C					✓	✓
i3-6320	3.9	4M	2/4	DDR4 - 1866/2133 DDR3L - 1333/1600	N/A		Intel® HD Graphics 530	1150	2 ch	51	2015C					✓	✓
i3-6300T	3.3	4M	2/4	DDR4 - 1866/2133 DDR3L - 1333/1600	N/A		Intel® HD Graphics 530	950	2 ch	35	2015A					✓	✓
i3-6300	3.8	4M	2/4	DDR4 - 1866/2133 DDR3L - 1333/1600	N/A		Intel® HD Graphics 530	1150	2 ch	51	2015C					✓	✓
i3-6100T	3.2	3M	2/4	DDR4 - 1866/2133 DDR3L - 1333/1600	N/A		Intel® HD Graphics 530	950	2 ch	35	2015A					✓	✓
i3-6100	3.7	3M	2/4	DDR4 - 1866/2133 DDR3L - 1333/1600	N/A		Intel® HD Graphics 530	1050	2 ch	51	2015C					✓	✓

¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. Go to: http://www.intel.com/products/processor_number/

All processors are lead-free (per EU RoHS directive July 2006) and halogen free (residual amounts of halogens are below November 2007 proposed IPC/JEDEC J-STD-709 standards)

All processors support Intel® Virtualization Technology (Intel® VT-x)

² Requires a system with Intel® Turbo Boost Technology. Intel Turbo Boost Technology and Intel Turbo Boost Technology 2.0 are only available on select Intel® processors. Consult your PC manufacturer. Performance varies tem configuration. For more information, visit <http://www.intel.com/go/turbo>

³ Warning: Altering PC clock or memory frequency and/or voltage may (i) reduce system stability and use life of the system, memory and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel assumes no responsibility that the memory, included if used with altered clock frequencies and/or voltages, will be fit for any particular purpose. Check with memory manufacturer for warranty and additional details. Intel® Turbo Boost Technology

DESKTOP PRODUCT LIFE CYCLE ROADMAP

Brand	SKUs	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17
Intel® Core™ i7 processors	i7-4765T, i7-4771, i7-4770, i7-4770T, i7-4790K, i7-4790, i7-4790T, i7-4785T	PDN		EOL		
	i7-4770S, i7-4790S	PSN		EOL		
	i7-5775C	PDN		EOL		
Intel® Core™ i5 processors	i5-4690K, i5-4670, i5-4670S, i5-4670T, i5-4570, i5-4570T, i5-4690, i5-4690S, i5-4690T, i5-4590, i5-4460, i5-4460S, i5-4460T, i5-4440, i5-4440S, i5-4430, i5-4430S	PDN		EOL		
	i5-4570S, i5-4590S, i5-4590T	PSN		EOL		
	i5-5675C	PDN		EOL		
Intel® Core™ i3 processors	i3-4350, i3-4150, i3-4150T, i3-4370, i3-4360T, i3-4160, i3-4160T	PDN		EOL		
	i3-4350T	PSN		EOL		
	i3-4370T, i3-4170, i3-4170T		PDN		EOL	
	i3-4360		PSN		EOL	
Intel® Pentium® processors	G3450, G3450T, G3440T, G3460, G3250, G3250T, G3240	PDN		EOL		
	G3440, G3460T, G3260, G3260T, G3470		PDN		EOL	
	J2900		PDN		EOL	
Intel® Celeron® processors	G1820T, G1830, G1840, G1840T	PDN		EOL		
	G1820	PSN		EOL		
	G1850		PDN		EOL	
	J1800		PDN		EOL	
	J1900		PSN		EOL	
Intel® Chipsets	H81		PDN		EOL	

EOL – End of Lifecycle (non-cancelable/non-returnable)

PDN – Product Discontinuance Notice

PSN – Product Support Change Notice



INTEL® BOXED THERMAL SOLUTIONS



INTEL® THERMAL SOLUTION TS13X

Intel® Thermal Solution TS13X (liquid cooling) is the perfect fit for extreme gaming and overclocking¹. It is designed for high-end desktop performance and overclocking needs.

Features

- Optimized performance
 - 120mm x 25mm fan
 - Updated cooler block
 - Supports 140 W processors
 - Supports the LGA1366, LGA115X, and LGA2011 sockets
- Visual improvements
- Low-profile pump
 - Blue LED lighting with ON / OFF switch
- 3 year limited warranty

OVERCLOCKING CAPABLE

MM# 929672 Product code: BXTS13X

INTEL® THERMAL SOLUTION TS15A

The Intel® Thermal Solution TS15A (air cooling) is an efficient thermal solution for 6th Generation Intel® Core™ processors. It is designed to support a wide range of processor sockets for performance desktops.

Features

- Supports 130 W processors
- Lower cost
- Shock and vibrate compliant and keep out safe
- Supports the LGA 1151/1156/1150
- 3 year limited warranty

NOT DESIGNED FOR OVERCLOCKING

MM# 944216 Product code: BXTS15A

INTEL® THERMAL SOLUTION TS13A

The Intel® Thermal Solution TS13A (air cooling) is designed for budget-focused cooling requirements. Targeted uses include business, government, and entry-level workstations.

Features

- Supports 140 W processors
- Low cost
- Shock and vibrate compliant and keep out safe
- Supports the LGA2011 and LGA2011-v3 socket only
- 3 year limited warranty

MM# 937425 Product code: BXTS13A

INTEL® THERMAL SOLUTION HTS1155LP

The Intel® Thermal Solution HTS1155LP is a compact cooling solution for Thin Mini-ITX based All-in-One PCs, and compatible Mini PCs.

Features

- Low-profile All-In-One / Small Form Factor thermal solution
- Supports all 65 W processors in the LGA1155 socket
- Compatible with Thin Mini-ITX desktop boards
- Multiple options for fan placement
- Available now from authorized Intel® distributors
- 3 year limited warranty

MM# 917752 Product code: BXHTS1155LP

¹ WARNING: Altering clock frequency and/or voltage may: (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications. Intel assumes no responsibility that the processor, including if used with altered clock frequencies and/or voltages, will be fit for any particular purpose. For more information, visit <http://www.intel.com/consumer/game/gaming-power.htm>

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at <http://www.intel.com/support/processors/sb/CS-034910.htm> or <http://www.intel.com/support/processors/sb/CS-034340.htm>

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* Other names and brands may be claimed as the property of others.





INTEL® NUC



INTEL® NUC

NEW! 7th generation Intel® NUCs.

The Intel® Mini PC has gotten faster, smaller and smarter! The latest products with 7th generation Intel® Core™ processors are available. Combining an incredibly small form factor, cutting-edge technologies (Thunderbolt 3 and support for Intel Optane Memory) and the performance of Intel's latest processors, the new Intel® NUCs deliver an incredible user experience.

NEW INTEL® NUC KITS

Introducing the most fully featured NUC Kits Intel® has offered to date. Including new features such as 7th gen Intel processors, Thunderbolt 3, support for Intel Optane Memory, 4K video at 60Hz and a new modern industrial design including a customizable front panel light ring.

INTEL® NUC KITS

The Intel® NUC kits are available from various retailers and include a highly customizable four-by-four-inch board that is ready to accept the memory, hard drive, and operating system you choose to install.

INTEL® NUC BOARDS

The four-by-four-inch Intel® NUC board comes complete with a soldered-on processor. The board can be purchased independently of the kit, giving you the flexibility to choose the chassis that best suits your needs.

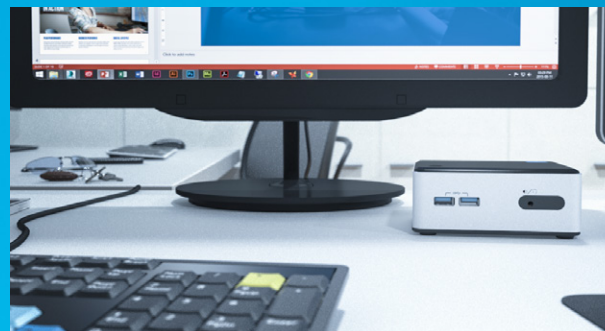
SMALL PACKAGE, BIG POTENTIAL

The Intel® NUC is an energy-efficient, fully functioning and versatile PC.



IMMERSIVE GAMING

With a form factor as small as a game controller, but as powerful as a dragon slayer, the Intel® NUC delivers an immersive gaming experience.



BUSINESS PRODUCTIVITY

The Intel® NUC delivers a fully functioning PC at a fraction of the size, as well as support for VESA* mount brackets and much more.



HOME ENTERTAINMENT

Compact and capable, Intel® NUC gives you the performance you need to be organized, connected and enjoy a visually stunning experience.



INTEL® NUC KIT NUC6I7KYK

Change the Game

Redefining what is possible in a Mini-PC, the Intel® NUC6i7KYK is the highest performing NUC ever. Packed with a 6th generation Intel® Core™ i7 processor, Intel® Iris™ Pro graphics and Thunderbolt 3, this NUC can power through most anything. With a sleek new design specifically optimized to eke out every bit of performance while minimizing fan noise, Skull Canyon raises the bar on what small can do.

Specifications

- Intel® 6th Generation Core™ i7-6770HQ processor
- Intel® Iris™ Pro graphics 580
- Up to 32GB 2666 MHz DDR4 SODIMMs
- Up to 7.1 surround audio via HDMI and Mini DisplayPort
- Thunderbolt 3 port, with USB3.1, DP1.2 support (USB-C)
- 2 x M.2 SSD w/ Gen3 PCIe X4 AHCI, NVMe, or SATA-III 6Gbps



NEW INTEL® NUC KITS¹



	NUC7i7BNH	NUC7i5BNH	NUC7i5BNK
PRODUCT FAMILY	NUC7i7BNH	NUC7i5BNH	NUC7i5BNK
KIT / BOARD	Intel® NUC Kit ¹	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	N/A	N/A	N/A
10-PACK PRODUCT CODE	N/A	N/A	N/A
PROCESSOR	Intel® Core™ i7-7567U	Intel® Core™ i5-7260U	Intel® Core™ i5-7260U
CHIPSET	N/A	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® Iris™ Plus graphics 650	Intel® Iris™ Plus graphics 640	Intel® Iris™ Plus graphics 640
DISPLAY OUTPUTS	HDMI DisplayPort	HDMI DisplayPort	HDMI DisplayPort
MEMORY SUPPORT⁴	Dual-Channel DDR4-2133 SODIMM, 1.2V, 34 GB ⁴ maximum	Dual-Channel DDR4-2133 SODIMM, 1.2V, 34 GB ⁴ maximum	Dual-Channel DDR4-2133 SODIMM, 1.2V, 34 GB ⁴ maximum
2.5" HDD SUPPORT	Yes	Yes	Yes
EXPANSION CONNECTORS	M.2 Support	M.2 Support	M.2 Support
AUDIO³	Up to 7.1 multichannel digital audio via HDMI or DisplayPort signals 3.5mm front headset jack	Up to 7.1 multichannel digital audio via HDMI or DisplayPort signals 3.5mm front headset jack	Up to 7.1 multichannel digital audio via HDMI or DisplayPort signals 3.5mm front headset jack
USB PORTS	Two front USB 3.0 (one for charging), two rear USB 3.0, two internal USB 2.0 via header	Two front USB 3.0 (one for charging), two rear USB 3.0, two internal USB 2.0 via header	Two front USB 3.0 (one for charging), two rear USB 3.0, two internal USB 2.0 via header
ONBOARD LAN	Intel® (219-V 10/100/1000 Mbps Ethernet Intel® Wireless-AC 8265	Intel® (219-V 10/100/1000 Mbps Ethernet Intel® Wireless-AC 8265	Intel® (219-V 10/100/1000 Mbps Ethernet Intel® Wireless-AC 8265
POWER CORD OPTION	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included
TRUSTED PLATFORM MODULE	N/A	N/A	N/A
LEAD-FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS Intel® Express BIOS update support	Intel® Visual BIOS Intel® Express BIOS update support	Intel® Visual BIOS Intel® Express BIOS update support
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	Replaceable lid Consumer Infrared sensor on front panel Micro SDXC slot with UHS-I support	Replaceable lid Consumer Infrared sensor on front panel Micro SDXC slot with UHS-I support	Replaceable lid Consumer Infrared sensor on front panel Micro SDXC slot with UHS-I support



PRODUCT FAMILY	NUC7i3BNH	NUC7i3BNK
KIT / BOARD	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	N/A	N/A
10-PACK PRODUCT CODE	N/A	N/A
PROCESSOR	Intel® Core i3-7100U	Intel® Core i3-7100U
CHIPSET	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® HD graphics 620	Intel® HD graphics 620
DISPLAY OUTPUTS	HDMI DisplayPort	HDMI DisplayPort
MEMORY SUPPORT⁴	Dual-channel DDR4 SODIMMs 1.2V, 2133 MHz, 32GB maximum	Dual-channel DDR4 SODIMMs 1.2V, 2133 MHz, 32GB maximum
2.5" HDD SUPPORT	Yes	No
EXPANSION CONNECTORS	M.2 Support	M.2 Support
AUDIO³	Up to 7.1 multichannel digital audio via HDMI or DisplayPort signals 3.5mm front headset jack	Up to 7.1 multichannel digital audio via HDMI or DisplayPort signals 3.5mm front headset jack
USB PORTS	Two front USB 3.0 (one for charging), two rear USB 3.0, two internal USB 2.0 via header	Two front USB 3.0 (one for charging), two rear USB 3.0, two internal USB 2.0 via header
ONBOARD LAN	Intel® 219-V 10/100/1000 Mbps Ethernet Intel® Wireless-AC 8265	Intel® 219-V 10/100/1000 Mbps Ethernet Intel® Wireless-AC 8265
POWER CORD OPTION	Multi-country plugs (IEC types A/C/G/I)	Multi-country plugs (IEC types A/C/G/I)
TRUSTED PLATFORM MODULE	N/A	N/A
LEAD-FREE	Yes	Yes
BIOS	Intel® Visual BIOS Intel® Express BIOS update support	Intel® Visual BIOS Intel® Express BIOS update support
WARRANTY	3-year Advanced Warranty Replacement	3-year Advanced Warranty Replacement
OTHER	Replaceable lid Consumer Infrared sensor on front panel Micro SDXC slot with UHS-I support	Replaceable lid Consumer Infrared sensor on front panel Micro SDXC slot with UHS-I support


FULL SYSTEM


PRODUCT FAMILY	NUC6CAYS	NUC6CAYH
KIT / BOARD	Intel® NUC Mini PC	Intel® NUC Kit ¹
5-PACK OUTERCASE	N/A	N/A
10-PACK PRODUCT CODE	N/A	N/A
PROCESSOR	Intel® Celeron® J3455	Intel® Celeron® J3455
CHIPSET	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® HD graphics 500	Intel® HD graphics 500
DISPLAY OUTPUTS	HDMI VGA	HDMI VGA
MEMORY SUPPORT⁴	Dual-channel DDR3L-1866 SODIMMs 1.35V, 8GB maximum 2Gb DDR3L-1600 module preinstalled	Dual-channel DDR3L-1866 SODIMMs 1.35V, 8GB maximum
2.5" HDD SUPPORT	Yes	Yes
EXPANSION CONNECTORS	SDXC slot with UHS-I support on the side	SDXC slot with UHS-I support on the side
AUDIO³	Up to 7.1 multichannel digital audio via HDMI 3.5mm front headset jack, 3.5mm rear speaker / TOSLINK combo jack	Up to 7.1 multichannel digital audio via HDMI 3.5mm front headset jack, 3.5mm rear speaker / TOSLINK combo jack
USB PORTS	Two front USB 3.0 (one charging), two rear USB 3.0, 2 internal USB 2.0 via header	Two front USB 3.0 (one charging), two rear USB 3.0, 2 internal USB 2.0 via header
ONBOARD LAN	Intel® Wireless-AC 3168 10/100/1000 Mbps Ethernet	Intel® Wireless-AC 3168 10/100/1000 Mbps Ethernet
POWER CORD OPTION	Multi-country plugs (IEC types A/C/G/I)	Multi-country plugs (IEC types A/C/G/I)
TRUSTED PLATFORM MODULE	N/A	N/A
LEAD-FREE	Yes	Yes
BIOS	Intel® Visual BIOS Intel® Express BIOS update support	Intel® Visual BIOS Intel® Express BIOS update support
WARRANTY	3-year Advanced Warranty Replacement	3-year Advanced Warranty Replacement
OTHER	Replaceable lid Consumer Infrared sensor on front panel Windows 10 Home pre-installed with latest Intel® drivers	Replaceable lid Consumer Infrared sensor on front panel



PRODUCT FAMILY	NUC6i3SYK	NUC6i3SYH
KIT / BOARD	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	N/A	N/A
10-PACK PRODUCT CODE	N/A	N/A
PROCESSOR	Intel® Core i3-6100U	Intel® Core i3-6100U
CHIPSET	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® HD graphics 520	Intel® HD graphics 520
DISPLAY OUTPUTS	HDMI mini DisplayPort	HDMI mini DisplayPort
MEMORY SUPPORT⁴	Dual-channel DDR4 SODIMMs 1.2V, 2133 MHz, 32GB maximum	Dual-channel DDR4 SODIMMs 1.2V, 2133 MHz, 32GB maximum
2.5" HDD SUPPORT	No	Yes
EXPANSION CONNECTORS	M.2 Support	M.2 Support
AUDIO³	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)
ONBOARD LAN	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 8260	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 8260
POWER CORD OPTION	Multi-country plugs (IEC types A/C/G/I)	Multi-country plugs (IEC types A/C/G/I)
TRUSTED PLATFORM MODULE	N/A	N/A
LEAD-FREE	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3-year Advanced Warranty Replacement	3-year Advanced Warranty Replacement
OTHER	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side



PRODUCT FAMILY	NUC6i5SYK	NUC6i5SYH
KIT / BOARD	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	N/A	N/A
10-PACK PRODUCT CODE	N/A	N/A
PROCESSOR	Intel® Core i5-6260U	Intel® Core i5-6260U
CHIPSET	N/A	N/A
INTEGRATED GRAPHICS CORE ²	Intel® HD Graphics 540	Intel® HD Graphics 540
DISPLAY OUTPUTS	HDMI mini DisplayPort	HDMI mini DisplayPort
MEMORY SUPPORT ⁴	Dual-channel DDR4 SODIMMs 1.2V, 2133 MHz, 32GB maximum	Dual-channel DDR4 SODIMMs 1.2V, 2133 MHz, 32GB maximum
2.5" HDD SUPPORT	No	Yes
EXPANSION CONNECTORS	M.2 Support	M.2 Support
AUDIO ³	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)
ONBOARD LAN	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 8260	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 8260
POWER CORD OPTION	Multi-country plugs (IEC types A/C/G/I)	Multi-country plugs (IEC types A/C/G/I)
TRUSTED PLATFORM MODULE	N/A	N/A
LEAD-FREE	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3-year Advanced Warranty Replacement	3-year Advanced Warranty Replacement
OTHER	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side



FULL SYSTEM



PRODUCT FAMILY	NUC5PGYH	NUC5PPYH	NUC5CPYH
KIT / BOARD	Intel® NUC Mini PC	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	N/A	N/A	N/A
10-PACK PRODUCT CODE	N/A	N/A	N/A
PROCESSOR	Intel® Pentium N3700	Intel® Pentium N3700 processor	Intel® Celeron® N3050
CHIPSET	N/A	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics
DISPLAY OUTPUTS	HDMI VGA	HDMI VGA	HDMI VGA
MEMORY SUPPORT⁴	Single Channel 2GB DDR3L SODIMM (pre-installed) 1.35V, 1333/1600 MHz, 8GB maximum (user-replaceable)	Single Channel DDR3L SODIMM 1.35V, 1333/1600 MHz, 8GB4 maximum	Single Channel DDR3L SODIMM 1.35V, 1333/1600 MHz, 8GB4 maximum
2.5" HDD SUPPORT	Yes	Yes	Yes
EXPANSION CONNECTORS	M.2 Support	M.2 support	M.2 support
AUDIO³	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack TOSLINK jack on rear panel	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)
ONBOARD LAN	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 3165	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 3165	Intel® 10/100/1000 Network Connection Intel® Wireless-AC 3165
POWER CORD OPTION	Multi-country plugs (IEC types A/C/G/I)	Multi-country plugs (IEC types A/C/G/I)	Multi-country plugs (IEC types A/C/G/I)
TRUSTED PLATFORM MODULE	N/A	N/A	N/A
LEAD-FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology; Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3-year Advanced Warranty Replacement	3-year Advanced Warranty Replacement	3-year Advanced Warranty Replacement
OTHER	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side Windows 10 with Bing 32-bit pre-installed with latest Intel® drivers	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side	Replaceable lid Consumer Infrared sensor on front panel SDXC slot with UHS-I support on the side





PRODUCT FAMILY	NUC5i7RYH	NUC5i5RYK/H	NUC5i3RYK/H
KIT / BOARD	Intel® NUC Kit ¹	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	BOXNUC5i7RYH	BOXNUC5i5RYK/H (K for M.2 only support, H for 2.5" drive support)	BOXNUC5i3RYK/H (K for M.2 only support, H for 2.5" drive support)
10-PACK PRODUCT CODE	N/A	N/A	N/A
PROCESSOR	Intel® Core™ i7-5557U	Intel® Core™ i5-5250U	Intel® Core™ i3-5010U
CHIPSET	N/A	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® Iris™ graphics 6100	Intel® HD graphics 6000	Intel® HD graphics 5500
DISPLAY OUTPUTS	Mini HDMI* Mini DisplayPort*	Mini HDMI* Mini DisplayPort*	Mini HDMI* Mini DisplayPort*
MEMORY SUPPORT⁴	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum
2.5" HDD SUPPORT	Yes	No for K SKU, Yes for H SKU	No for K SKU, Yes for H SKU
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with M.2 support	One full-size PCI Express* Mini Card with M.2 support	One full-size PCI Express* Mini Card with M.2 support
AUDIO³	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel with one being charging capable, two back panel) and two USB 2.0 ports (via internal header)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection Intel® Wireless-AC 7265	Intel® PRO 10/100/1000 Network Connection Intel® Wireless-AC 7265	Intel® PRO 10/100/1000 Network Connection Intel® Wireless-AC 7265
POWER CORD OPTION	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included
TRUSTED PLATFORM MODULE	N/A	N/A	N/A
LEAD-FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	Replaceable lid Consumer Infrared sensor on front panel	Replaceable lid Consumer Infrared sensor on front panel	Replaceable lid Consumer Infrared sensor on front panel



PRODUCT FAMILY	NUC5i5MYHE	NUC5i3MYHE	DE3815TYKHE
KIT / BOARD	Intel® NUC Kit ¹	Intel® NUC Kit ¹	Intel® NUC Kit ¹
5-PACK OUTERCASE	BLKNUC5i5MYHE	BLKNUC5i3MYHE	BLKDE3815TYKH0E
10-PACK PRODUCT CODE	N/A	N/A	N/A
PROCESSOR	Intel® Core™ i5-5300U	Intel® Core™ i3-5010U	Intel® Atom™ E3815
CHIPSET	N/A	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® HD graphics 5500	Intel® HD graphics 5500	Intel® HD graphics
DISPLAY OUTPUTS	Two Mini DisplayPort* eDP* with backlight and adjustable voltage / timings	Two Mini DisplayPort* eDP* with backlight and adjustable voltage / timings	HDMI* VGA eDP*
MEMORY SUPPORT⁴	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum	Single-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 8 GB ⁴ maximum
2.5" HDD SUPPORT	Yes	Yes	Yes
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with M.2 support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with M.2 support and one half-size PCI Express Mini Card	One half-size PCI Express* Mini Card
AUDIO³	Eight-Channel (7.1) digital audio via Mini DisplayPort output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini DisplayPort output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	One USB 3.0 port (front panel), five USB 2.0 ports (two external ports and three additional ports via internal headers)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
POWER CORD OPTION	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included
TRUSTED PLATFORM MODULE	Yes (TPM v2.0)	Yes (TPM v2.0)	N/A
LEAD-FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	Replaceable lid Backpanel serial port expandability via onboard header High-speed Custom Solutions header	Replaceable lid Backpanel serial port expandability via onboard header High-speed Custom Solutions header	4 GB eMMC storage device soldered down, Custom Solutions header, watchdog timer, fanless design

INTEL® NUC KIT¹ SUMMARY

INTEL® NUC	PROCESSOR ⁵	SODIMM MEMORY	DIMMS	SUPPORT FOR 2.5" DRIVE	DISPLAY OUTPUT	MINI PCI Express®	AUDIO	USB 3 EXT+INT	USB 2 EXT+INT	LAN	3 YEAR PRODUCT LIFE	OTHER
NUC6CAYH	Intel® Celeron™ J3455 processor	DDR3L	2	Yes	HDMI* + VGA	0	7.1 digital (HDMI)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUC6CAYS	Intel® Celeron™ J3455 processor	DDR3L	2	Yes	HDMI* + VGA	0	7.1 digital (HDMI)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUCi3BNK	Intel® Core™ i3-7100U processor	DDR4	2	No	HDMI* + DP1.2	1 M.2	7.1 digital (HDMI or DP)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUCi3BNH	Intel® Core™ i3-7100U processor	DDR4	2	Yes	HDMI* + DP1.2	1 M.2	7.1 digital (HDMI or DP)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUC7i5BNK	Intel® Core™ i5-7260U processor	DDR4	2	No	HDMI* + DP1.2	1 M.2	7.1 digital (HDMI or DP)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUC7i5BNH	Intel® Core™ i5-7260U processor	DDR4	2	Yes	HDMI* + DP1.2	1 M.2	7.1 digital (HDMI or DP)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUC7i7BNH	Intel® Core™ i7-7567U processor	DDR4	2	Yes	HDMI* + DP1.2	1 M.2	7.1 digital (HDMI or DP)	4 + 0	0 + 2	GbE + WiFi*	No	Intel® HD graphics
NUC6i7KYK	Intel® Core™ i7-6770HQ processor	DDR4	2	No	mDP 1.2; HDMI* 2.0; USB-C (DP1.2)	2 M.2	7.1 digital (HDMI mDP); L+R+mic	4 + 0	0 + 2	GbE + WiFi*	No	Intel® Iris™ Pro graphics; Thunderbolt 3; CIR
NUC6i3SYK	Intel® Core™ i3-6100U processor	DDR4	2	No	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC6i3SYH	Intel® Core™ i3-6100U processor	DDR4	2	Yes	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC6i5SYK	Intel® Core™ i5-6260U processor	DDR4	2	No	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC6i5SYH	Intel® Core™ i5-6260U processor	DDR4	2	Yes	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC5PGYH	Intel® Pentium N3700 processor	DDR3L	1	Yes	mHDMI* + VGA	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC5PPYH	Intel® Pentium N3700 processor	DDR3L	1	Yes	mHDMI* + VGA	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC5CPYH	Intel® Celeron® N3050 processor	DDR3L	1	Yes	mHDMI* + VGA	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	CIR
NUC5i7RYH	Intel® Core™ i7-5557U processor	DDR3L	2	Yes	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi*	No	Intel® Iris™ graphics, CIR
NUC5i5RYK/H	Intel® Core™ i5-5250U processor	DDR3L	2	No	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi	No	CIR
NUC5i3RYK/H	Intel® Core™ i3-5010U processor	DDR3L	2	No	mHDMI* + mDP	1 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE + WiFi	No	CIR
NUC5i5MYHE	Intel® Core™ i5-5300U processor	DDR3L	2	Yes	Dual mDP	2 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE	Yes	Intel® vPro™, TPM v2.0
NUC5i3MYHE	Intel® Core™ i3-5010U processor	DDR3L	2	Yes	Dual mDP	2 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE	Yes	TPM v2.0
DE3815TYKHE	Intel® Atom™ processor E3815	DDR3L	1	Yes	HDMI + VGA + eDP	1	8-ch + 2-ch	1 + 0	2 + 3	GbE	Yes	Fanless + 4 GB on-board memory



INTEL® NUC BOARDS



PRODUCT FAMILY	NUC5i5MYBE	NUC5i3MYBE	DE3815TYBE
KIT / BOARD	Intel® NUC Board	Intel® NUC Board	Intel® NUC Board
5-PACK OUTERCASE	BLKNUC5i5MYBE	BLKNUC5i3MYBE	N/A
10-PACK PRODUCT CODE	N/A	N/A	BLKDE3815TYBE
PROCESSOR	Intel® Core™ i5-5300U	Intel® Core™ i3-5010U	Intel® Atom™ E3815
CHIPSET	N/A	N/A	N/A
INTEGRATED GRAPHICS CORE²	Intel® HD graphics 5500	Intel® HD graphics 5500	Intel® HD graphics
DISPLAY OUTPUTS	Two Mini DisplayPort* eDP* with backlight and adjustable voltage / timings	Two Mini DisplayPort* eDP* with backlight and adjustable voltage / timings	HDMI* VGA eDP*
MEMORY SUPPORT⁴	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum	Dual-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 16 GB ⁴ maximum	Single-Channel SODIMM DDR3L 1333 / 1600 MHz, 1.35V, 8 GB ⁴ maximum
2.5" HDD SUPPORT	Yes	Yes	Yes
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with M.2 support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with M.2 support and one half-size PCI Express Mini Card	One half-size PCI Express* Mini Card
AUDIO³	Eight-Channel (7.1) digital audio via Mini DisplayPort output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via Mini DisplayPort output, two-channel via headphone jack	Eight-Channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	One USB 3.0 port (front panel), five USB 2.0 ports (two external ports and three additional ports via internal headers)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
POWER CORD OPTION	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included	N/A
TRUSTED PLATFORM MODULE	Yes (TPM v2.0)	Yes (TPM v2.0)	N/A
LEAD-FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	Serial port header High-speed Custom Solutions header	Serial port header High-speed Custom Solutions header	4 GB eMMC storage device soldered down, Custom Solutions header, watchdog timer, fanless design

INTEL® NUC BOARD SUMMARY

INTEL® NUC	PROCESSOR ⁵	SODIMM MEMORY	DIMMS	SUPPORT FOR 2.5" DRIVE	DISPLAY OUTPUT	MINI PCIe*	AUDIO	USB 3 EXT+INT	USB 2 EXT+INT	LAN	3 YEAR PRODUCT LIFE	OTHER
NUC5i5MYBE	Intel® Core™ i5-5300U processor	DDR3L	2	Yes	Dual mDP	2 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE	Yes	Intel® vPro™, TPM v2.0
NUC5i3MYBE	Intel® Core™ i3-5010U processor	DDR3L	2	Yes	Dual mDP	2 M.2	8-ch + 2-ch	4 + 0	0 + 2	GbE	Yes	TPM v2.0
DE3815TYBE	Intel® Atom™ processor E3815	DDR3L	1	Yes	HDMI + VGA + eDP*	1	8-ch + 2-ch	1 + 0	2 + 3	GbE	Yes	Fanless + 4 GB on-board memory



For more information, visit www.intel.com/NUC

¹ Intel® NUC Kit: Each kit contains motherboard, chassis, and power supply.

² Requires a processor with Intel® HD graphics.

³ Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. Check with your system manufacturer or retailer or learn more at www.intel.com/design/chipsets/hdaudio.htm

⁴ System resources and hardware (such as PCI and PCI Express*) require physical memory address locations that can reduce available addressable system memory. This could result in a reduction of as much as 1 GB or more of physical addressable memory being available to the operating system and applications, depending on the system configuration and operating system.

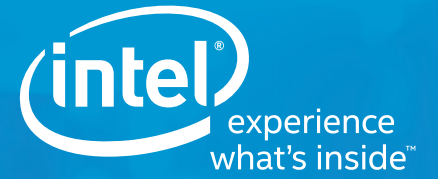
⁵ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. Go to: http://www.intel.com/products/processor_number/

Intel® NUC Kits and Boards may contain design defects or errors known as errata, which may cause the product to deviate from published specifications. Current characterized errata are available on request. All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

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INTEL[®] COMPUTE STICK





INTEL® COMPUTE STICK

Connect. Compute.
It's that simple.

INTEL® COMPUTE STICK

QUAD-CORE INTEL® ATOM™ PROCESSOR

This innovative processor delivers great performance while consuming low energy—making the Intel® Compute Stick both space and energy efficient.

INTEL® HD GRAPHICS

Exceptional clarity makes for an exceptional visual experience. The Intel® Compute Stick delivers HD wow, whether you're viewing videos, games, or photos.

INTEL® HD AUDIO

Get a high quality, multichannel sound experience, without an audio card. It's truly an immersive media experience that will have your ears seeing stars.

THE INTEL[®] COMPUTE STICK

Connect. Compute.
It's that simple.



INTERACTIVE DISPLAY

Transform a display into a fully functional interactive display solution.



CONFERENCE PRESENTATION

Connect to your presentation device and stream videos or display visual content with ease.



ENTERTAINMENT

Turn your HDMI* television or monitor into a home entertainment computer.



INTEL® COMPUTE STICK “CEDAR CITY”



Product Code	STK2m3W64CC	STK2mv64CC
Processor	6th generation Intel® Core™ Y-Series m3, 1.6GHz, 3MB L3 cache (M3-6Y30 SoC)	6th generation Intel® Core™ Y-Series m5, 1.6GHz, 3MB L3 cache (M3-6Y30 SoC), Intel® vPro™ Technology
Memory	Integrated in SoC Dual-channel LPDDR3 1.2V, 1866 MHz, 2GB per channel (4GB total memory)	Integrated in SoC Dual-channel LPDDR3 1.2V, 1866 MHz, 2GB per channel (4GB total memory)
Graphics	Intel® HD graphics 1x HDMI 1.4b male plug	Intel® HD graphics 1x HDMI 1.4b male plug
Audio	Multi-channel digital audio via HDMI interface	Multi-channel digital audio via HDMI interface
Peripheral Connectivity	1x USB 3.0 Type-A host port on side	1x USB 3.0 Type-A host port on side
Storage	64GB eMMC storage device soldered down Micro SDXC v3.0 slot with UHS I-Support (on side)	64GB eMMC storage device soldered down Micro SDXC v3.0 slot with UHS I-Support (on side)
Networking	IEEE 802.11 g/n/ac dual band and Bluetooth 4.1 Wireless module soldered down w/ dual band antennas	IEEE 802.11 g/n/ac dual band and Bluetooth 4.1 Wireless module soldered down w/ dual band antennas
Enclosure	Dimensions: Approx. 114mm x 38mm x 11mm Black Chassis Security Loop (Size TBD)	Dimensions: Approx. 114mm x 38mm x 11mm Black Chassis Security Loop (Size TBD)
Power Delivery	MicroUSB* Type-C power connector & cable 5V/2A Wall-wart style with US (includes Japan), AUS, UK, India, and EU interchangeable plugs	MicroUSB* Type-C power connector & cable 5V/2A Wall-wart style with US (includes Japan), AUS, UK, India, and EU interchangeable plugs
Additional Featured	Pre-installed OS: Windows* 10, 64-bit HDMI* Extender Cable Power LED, Power Button Three Year Warranty	HDMI* Extender Cable Power LED, Power Button Three Year Warranty

For more information, visit www.intel.com/computestick

Actual Intel® Compute Stick may differ from the image shown. Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/computestick

* Other names and brands may be claimed as the property of others.

INTEL® COMPUTE STICK “STERLING CITY”



Product Code	STK1AW32SC	STK1A32SC
Processor	Intel® Atom Quad-Core Processor x5-Z8300 Type 3 BGA	Intel® Atom Quad-Core Processor x5-Z8300 Type 3 BGA
Memory	Soldered down Single-channel DDR3L 1.35V, 1600 MHz, 2GB	Soldered down Single-channel DDR3L 1.35V, 1600 MHz, 2GB
Graphics	Intel® HD graphics (Gen 8 LP) 1x HDMI 1.4b (1080p) male plug	Intel® HD graphics (Gen 8 LP) 1x HDMI 1.4b (1080p) male plug
Audio	Multi-channel digital audio via HDMI interface	Multi-channel digital audio via HDMI interface
Peripheral Connectivity	1x USB 3.0 Type-A host port on side 1x USB 2.0 Type-A host port on side	1x USB 3.0 Type-A host port on side 1x USB 2.0 Type-A host port on side
Storage	32GB eMMC storage device soldered down Micro SDXC v3.0 slot with UHS I-Support (on side)	32GB eMMC storage device soldered down Micro SDXC v3.0 slot with UHS I-Support (on side)
Networking	Intel® Dual Band Wireless AC 7265 with Bluetooth 4.0	Intel® Dual Band Wireless AC 7265 with Bluetooth 4.0
Enclosure	Black chassis with Intel Inside logo, plastic enclosure Dimensions: Approx. 113 mm x 38 mm x 12 mm	Black chassis with Intel Inside logo, plastic enclosure Dimensions: Approx. 113 mm x 38 mm x 12 mm
Power Delivery	MicroUSB power connector 5V/3A wall-mount AC-DC power adapter w/ support for US, EU, UK, AUS (SKU 1) and IND, BRA, ARG, CHN, KOR (SKU 2) outlets	MicroUSB power connector 5V/3A wall-mount AC-DC power adapter w/ support for US, EU, UK, AUS (SKU 1) and IND, BRA, ARG, CHN, KOR (SKU 2) outlets
Additional Features	Pre-installed OS: Windows* 10, 32-bit (64-bit capable) Intel BIOS Hot Plug video detect Power LED, power button One Year Warranty	Intel BIOS Hot Plug video detect Power LED, power button One Year Warranty

For more information, visit www.intel.com/computestick

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INTEL® ETHERNET DESKTOP ADAPTERS

Intel® Ethernet. It Just Works.

Intel offers an award-winning line of Ethernet, Fast Ethernet, and Gigabit Ethernet desktop adapters. Choose from a variety of adapters designed to extend Gigabit Ethernet performance to the desktop, enhance desktop management, and provide flexible connectivity for your legacy PCs.

10/100/1000 Mb/s-OVER-COPPER



PRODUCT FAMILY	INTEL® GIGABIT CT DESKTOP ADAPTER	INTEL® PRO/1000 GT DESKTOP ADAPTER
PRODUCT CODE— SINGLES	EXPI9301CT	PWLA8391GT
PRODUCT CODE— BULK TWENTY PACKS (FULLHEIGHT END BRACKETS)	EXPI9301CTBLK ¹	PWLA8391GTBLK
PRODUCT CODE— BULK TWENTY PACKS (LOWPROFILE END BRACKETS)	EXPI9301CTBLK ¹	PWLA8391GTBLK
CONNECTOR	1 RJ-45	1 RJ-45
ETHERNET CONTROLLERS	Intel® 82574L	Intel® 82574L Intel® 82541PI
BUS WIDTH AND TYPE	PCI Express* x1	32-bit PCI 2.3

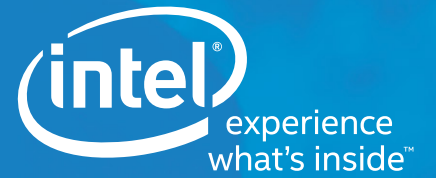
For more information, visit www.intel.com/go/ethernet

¹ Full-height bracket installed, low-profile bracket added in package.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/go/ethernet

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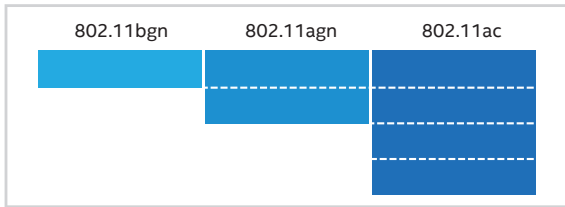
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INTEL® WIRELESS PRODUCTS

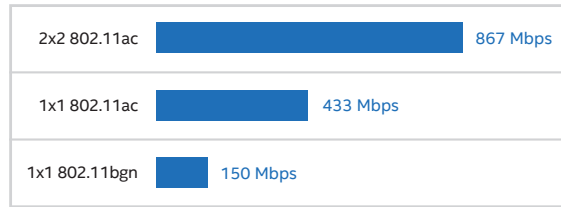
Improved Capacity³

802.11ac combines four 20 MHz channels into a super-wide 80 MHz channel. More capacity, less congestion.



Nearly Six Times Faster Data Rates⁴

Less time waiting, more time enjoying. 802.11ac: 2 data streams on 2 antennas for the best experience.



Progression of Wi-Fi Standards & Technologies

YEAR	WI-FI TYPE	SHORT NAME	MAX SPEED	STREAMS	CHANNEL WIDTH	CHANNEL DENSITY
2013	2x2 802.11ac	2x2AC	867Mbps	2	80MHz	Heavy
2013	1x1 802.11ac	1x1AC	433Mbps	1	80MHz	Heavy
2007	1x1 802.11n	1x1BGN/AGN	150Mbps	1	40MHz	Medium

Note: Wider channels, heavier channel densities, and higher number of streams each contribute to higher maximum speeds

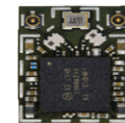
- 802.11ac products are nearly 6X faster⁴ than 802.11n, is fully backwards compatible, and supports both the 2.4GHz and 5GHz spectrum.
- PC (client) and AP/Router must both have 802.11ac to get highest speeds.
- 2x2AC clients are 2X faster than 1x1AC clients².
- Intel has important additional unique features:
 - Wireless Active Management Technology (Intel® vPro™ Technology)¹

Module Form Factors

22 x 30mm M.2
Socketed



12 x 16mm M.2
Soldered Down



INTEL® WIRELESS-AC PRODUCTS

Wireless Products (802.11ac Wi-Fi* and Bluetooth*)

Wi-Fi is not just for laptops. Experience the flexibility and performance offered by Intel® Wireless-AC in the desktop.



PRODUCT	INTEL® DUAL BAND WIRELESS-AC 8265	INTEL® DUAL BAND WIRELESS-AC 8260	INTEL® DUAL BAND WIRELESS-AC 7265	INTEL® DUAL BAND WIRELESS-AC 7260	INTEL® DUAL BAND WIRELESS-AC 3168	INTEL® DUAL BAND WIRELESS-AC 3165
FORM FACTOR	M.2 2230, 1216 (Solder Down)	M.2 2230, 1216 (Solder Down)	M.2 2230, 1216 (Solder Down)	M.2 2230, 2226 (Solder Down), HMC	M.2 2230	M.2 2230
SPEED SPATIAL STREAMS (TX AND RX)	867Mb/s (2x2)	867 Mb/s (2x2)	867 Mb/s (2x2)	867 Mb/s (2x2)	433 Mb/s (1x1)	433 Mb/s (1x1)
ENTERPRISE / SMB FEATURES	Intel® PROSet/Wireless Software Cisco*CCXV4 MU-MIMO	Intel® PROSet / Wireless Software Cisco* CCXV4	Intel® PROSet / Wireless Software Cisco* CCX V4	Intel® PROSet / Wireless Software Cisco* CCXV4	Intel® PROSet / Wireless Software	Intel® PROSet / Wireless Software
BANDS	Dual Band – 2.4 GHz and 5 GHz	Dual Band – 2.4 GHz and 5 GHz	Dual Band – 2.4 GHz and 5 GHz	Dual Band – 2.4 GHz and 5 GHz	Dual Band – 2.4 GHz and 5 GHz	Dual Band – 2.4 GHz and 5 GHz
INTEL® vPRO™ TECHNOLOGY ¹	✓	✓	✓	✓		
BLUETOOTH*	Bluetooth* 4.2	Bluetooth* 4.2	Bluetooth* 4.2	Bluetooth* 4.0	Bluetooth* 4.2	Bluetooth* 4.2
WI-FI* CERTIFICATION (802.11)	WiFi certified 802.11ac/a/b/g/n	WiFi certified 802.11ac/a/b/g/n	WiFi certified 802.11ac/a/b/g/n	WiFi certified 802.11ac/a/b/g/n	WiFi certified 802.11ac/a/b/g/n	WiFi certified 802.11ac/a/b/g/n
OPTIMIZED FOR	7th Generation Intel® Core™ Processors	6th Generation Intel® Core™ Processors	5th & 6th Generation Intel® Core™ Processors	4th Generation Intel® Core™ Processors	6th Generation Intel® Core™ Processors	5th & 6th Generation Intel® Core™ Processors

PCI EXPRESS* WIRELESS ADAPTER

Wireless Products (802.11ac Wi-Fi* and Bluetooth*)

Intel® wireless networking solutions for desktop platforms enable network connectivity without wires. These traditional desktop-focused solutions are based on the PCI Express* form factor and include an external antenna. Intel® products provide uncompromising performance, enhanced security, and scalability for fast, flexible connectivity at work and home.



SEGMENT	BUSINESS, EDUCATION, PERFORMANCE CONSUMER
PRODUCT	INTEL® DUAL BAND WIRELESS-AC 7260 FOR DESKTOP
FORM FACTOR	PCI Express* x1
ANTENNA	Included
SPEED SPATIAL STREAMS (TX AND RX)	867 Mb/s (2x2) ³
BANDS	Dual Band – 2.4 GHz and 5 GHz
ENTERPRISE / SMB FEATURES	Intel® PROSet / Wireless Software Cisco* CCXv4
BLUETOOTH* 4	Bluetooth* 4.0
WI-FI* CERTIFICATION (802.11)	802.11ac, 802.11n

Intel offers a full portfolio of advanced technologies to optimise every wireless experience

PRODUCT CODE	MM#	DESCRIPTION	PACKING	PRODUCT CONSIDERATIONS
WINDSTORM PEAK - 8265				
8265.NGWMG	946658	2x2 MU-MIMO 802.11ac/a/b/g/n + Bluetooth* 4.2 - m.2	100 Packs	Recommended overall wireless solution for M.2 form-factor on 7th Generation Intel® Core™ Processors.
SNOWFIELD PEAK - 8260				
8260.NGWMG	942165	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.2 - m.2	100 Packs	Recommended overall wireless solution for M.2 form-factor on 6th Generation Intel® Core™ Processors.
SANDY PEAK - 3168				
3168.NGWWG	944884	1x1 802.11ac/a/b/g/n + Bluetooth* 4.2 - m.2	100 Packs	Nearly 3x faster than 802.11 bgn/agn based products. ⁴
STONE PEAK 1 & 2 - 3165 & 7265				
7265.NGWWG.W	939155	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.1 - rev.2, m.2	100 Packs	Recommended overall wireless solution for M.2 form-factor on 5th Generation Intel® Core™ Processor based systems. Supports Intel® vPro™ Technology on 5th Generation Intel® Core™ Processors. ¹
7265.NGWWB.W	945063	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.1 - rev.2, m.2, 10pk	10 Packs	Lower quantity pack to support smaller product orders.
3165.NGWWG	940106	1x1 802.11ac/a/b/g/n + Bluetooth* 4.1 - m.2	100 Packs	Nearly 3x faster than 802.11 bgn/agn based products. ⁴
WILKINS PEAK 2 - 7260				
7260.HMWWG.R	936131	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.0 - HMC	100 Packs	Recommended overall wireless solution for the HMC form-factor on 4th Generation Intel® Core™ process based systems. Supports Intel® vPro™ Technology on 4th Generation Intel® Core™ Processors.
7260.HMWWB.R	936158	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.0 - HMC, 10pk	10 Packs	Lower quantity pack to support smaller product orders.
7260HMWDTX1.R	936169	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.0 - PCIe1, boxed	1 Retail Box	Desktop Tower PCIe-x1 form-factor, retail boxed version. Includes both full- and half-height brackets and antenna.
7260HMWDTX1G.R	936170	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.0 - PCIe1, full bracket	20 Packs	Desktop Tower PCIe-x1 form-factor, w/ full-height bracket. Includes antenna.
7260HMWDTX1H.R	936171	2x2 MIMO 802.11ac/a/b/g/n + Bluetooth* 4.0 - PCIe1, half bracket	20 Packs	Desktop Tower PCIe-x1 form-factor, w/ half-height bracket. Includes antenna.

For more information, visit www.intel.com/wireless

For more information, visit www.intel.com/wireless

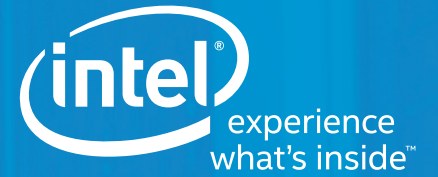
- ¹ Intel® vPro™ technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software, and IT environment. To learn more visit: www.intel.com/content/www/us/en/architecture-and-technology/vpro/intel-vpro-technology-developer.html
- ² Based on actual product benchmark performance. Theoretical maximum bandwidth enabled by 2x2 802.11ac implementations is 867 Mbps PHY rate.
- ³ Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit <http://www.intel.com/performance>.
- ⁴ "Nearly 3x/6x faster" Intel® Wireless-AC claims are based on the comparison of maximum theoretical data rates for single (433 Mbps) and dual (867 Mbps) spatial stream 802.11ac vs. single spatial stream (150 Mbps) 802.11n Wi-Fi solutions as documented in IEEE 802.11 wireless standard specifications, and require the use of similarly configured 802.11ac wireless network routers or better.

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INTEL[®] XEON[®] PROCESSOR AND INTEL[®] CHIPSET



INTEL® XEON® PROCESSOR AND INTEL® CHIPSET

Better Together: Recommend the Best Intel® Xeon® Processor and Intel® Chipset

SEGMENT	POSITIONING	RECOMMENDED PROCESSOR SERIES ¹	MAX. SOCKETS PER SYSTEM	NO. OF CORES	MAX. FREQ. ²	POWER	INTEL® QPI (GT/S) ³	CACHE	RECOMMENDED INTEL® CHIPSET
EXPANDABLE Leading performance, reliability, and scalability Target usage: Optimized for large enterprises, data centers, and server consolidation Recommended configuration: 4+ processors	Best	Intel® Xeon® processor E7-8800 v4 product family	8	Up to 24	3.50 GHz	115–165 W	Up to 9.6 GT/s	Up to 60 MB	Intel® C602J Chipset
	Best	Intel® Xeon® processor E7-4800 v4 product family	4	Up to 16	2.80 GHz	115 W	Up to 8 GT/s	Up to 40 MB	Intel® C602J Chipset
	Good	Intel® Xeon® processor E5-4600 v4 product family	4	Up to 22	3.20 GHz	75–135 W	Up to 8 GT/s	Up to 55 MB	Intel® C600 Chipset
EFFICIENT PERFORMANCE Energy efficient, cost-effective Target usage: Optimized for general purpose servers (e-mail, web, file, business applications), IT infrastructure virtualization, and cloud computing Recommended configuration: 2 processors	Best	Intel® Xeon® processor E5-2600 v4 product family	2	Up to 22	3.80 GHz	55–145 W	Up to 9.6 GT/s	Up to 55 MB	Intel® C610 Chipset
	Better	Intel® Xeon® processor E5-2600 v4 product family	2	Up to 12	3.20 GHz	55–105 W	Up to 8 GT/s	Up to 35 MB	Intel® C600 Chipset
ENTRY Cost-optimized Target usage: Small businesses with fewer than 100 employees, basic needs (e-mail, network, file / print) Recommended configuration: 1–2 processors	Best	Intel® Xeon® processor E5-2600 v4 product family	2	Up to 8	3.0 GHz	85 W	Up to 8 GT/s	Up to 20 MB	Intel® C610 Chipset
	Better	Intel® Xeon® processor E3-1200 v5 product family	1	4	3.70 GHz	25 – 80 W	N/A	Up to 8 MB	Intel® C232, C236 Chipset

For more information, visit www.intel.com/xeon



Better Together: Recommend the Best Intel® Xeon® Processor and Intel® Chipset

SEGMENT	POSITIONING	RECOMMENDED PROCESSOR SERIES ¹	MAX. SOCKETS PER SYSTEM	NO. OF CORES	MAX. FREQ. ²	POWER	INTEL® QPI (GT/S) ³	CACHE	RECOMMENDED INTEL® CHIPSET
HPC Optimized for high-performance analytics Target usage: Bandwidth-intensive applications, high-performance clusters, and complex computation	Best	Intel® Xeon® processor E7-8800 v4 product family	8	Up to 24	3.50 GHz	115–165 W	Up to 9.6 GT/s	Up to 60 MB	Intel® C602J Chipset
	Better	Intel® Xeon® processor E5-4600 v4 product family	4	Up to 22	3.20 GHz	75–135 W	Up to 8 GT/s	Up to 55 MB	Intel C600 Chipset
	Good	Intel® Xeon® processor E5-2600 v4 product family	2	Up to 22	3.80 GHz	55–145 W	Up to 9.6 GT/s	Up to 55 MB	Intel C610 Chipset
	Coprocessors	Intel® Xeon® Phi™ Coprocessors	PCI Express*, varies per system	Up to 61	1.238 GHz	225–300 W	N/A	Up to 30.5 MB	Intel® Xeon® Processors
WORKSTATION Optimized for complex analysis / visualization Target usage: Graphics rendering, multimedia content development, engineering applications (CAD / CAM), and software development	Best	Intel® Xeon® processor E5-2687W v4 product family	2	12	3.50 GHz	160 W	Up to 9.60 GT/s	Up to 30 MB	Intel® C610 Chipset
	Better	Intel® Xeon® processor E5-1600 v4 product family	1	Up to 8	4.00 GHz	140 W	N/A	Up to 20 MB	Intel® C610 Chipset
	Good	Intel® Xeon® processor E3-1200 v5 product family	1	4	4.00 GHz	80 W	N/A	Up to 8 MB	Intel® C232, C236 Series Chipset
	Coprocessors	Intel® Xeon® Phi™ Coprocessors	PCI Express, varies per system	Up to 61	1.238 GHz	225–300 W	N/A	Up to 30.5 MB	Intel® Xeon® Processors

For more information, visit www.intel.com/xeon

¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number/ for details.

² Processor frequency as shown represents maximum frequency specification for the respective processor number family.

³ Intel® QPI—Intel® QuickPath Interconnect; GT/s—Gigatransfers per second.

Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

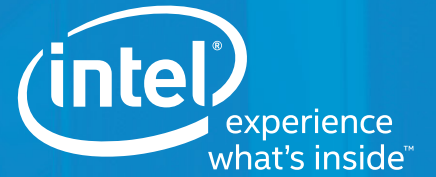
All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

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INTEL® SERVER / WORKSTATION PROCESSORS

INTEL® SERVER / WORKSTATION PROCESSORS

Innovation You Want. Versatility You Need.

INTEL® XEON PHI™ PRODUCT FAMILY

INTEL® XEON® PROCESSOR E7-8800/4800 V4 FAMILY

INTEL® XEON® PROCESSOR E7-8800/4800 V3 FAMILY

INTEL® XEON® PROCESSOR E7-8800/4800/2800 V2 FAMILY

INTEL® XEON® PROCESSOR E5-4600 V4 FAMILY

INTEL® XEON® PROCESSOR E5-4600 V3 FAMILY

INTEL® XEON® PROCESSOR E5-2600/1600 V4 FAMILY

INTEL® XEON® PROCESSOR E5-2600/1600 V3 FAMILY

INTEL® XEON® PROCESSOR E5-4600/2600/2400/1600 V2 FAMILY

INTEL® XEON® PROCESSOR E3-1500 V5 FAMILY

INTEL® XEON® PROCESSOR E3-1200 V5 FAMILY

INTEL® XEON® PROCESSOR E3-1200 V4 FAMILY

INTEL® XEON® PROCESSOR E3-1200 V3 FAMILY

INTEL® XEON® PROCESSOR D-1500 PRODUCT FAMILY



INTEL® XEON® PHI™ PRODUCT FAMILY

The Intel® Xeon Phi™ Processor – Your Path to Deeper Insight

Eliminate node bottlenecks, simplify your code modernization, and build on a power-efficient architecture with the Intel® Xeon Phi™ processor, a foundational element of Intel® Scalable System Framework. The bootable host processor offers an integrated architecture for powerful, highly parallel performance that will pave your path to deeper insight, innovation, and impact for today's most-demanding High Performance Computing applications, including Machine Learning. Supported by a comprehensive technology roadmap and robust ecosystem, the Intel® Xeon Phi™ processor is a future-ready solution that maximizes your return on investment by using open standards code that are flexible, portable, and reusable.

Product Specifications

PROCESSOR NAME	AVAILABILITY	# OF CORES/ # OF THREADS	CLOCK SPEED	MAX TDP/POWER	MEMORY TYPES	FABRIC	L2 CACHE
Intel® Xeon™ Phi Processor 7250 (16GB, 1.40 GHz, 68 core)	Now	68/272	1.4 GHz	215 W	DDR4-2400	No	34 MB
Intel® Xeon™ Phi Processor 7230 (16GB, 1.30 GHz, 64 core)	Now	64/256	1.3 GHz	215 W	DDR4-2400	No	32 MB
Intel® Xeon™ Phi Processor 7210 (16GB, 1.30 GHz, 64 core)	Now	64/256	1.3 GHz	215 W	DDR4-2133	No	32 MB
Intel® Xeon™ Phi Processor 7290 (16GB, 1.50 GHz, 72 core)	Sept. 2016	72/288	1.5 GHz	245 W	DDR4-2400	No	36 MB
Intel® Xeon™ Phi Processor 7290F (16GB, 1.50 GHz, 72 core)	Oct. 2016	72/288	1.5 GHz	260 W	DDR4-2400	Yes	36 MB
Intel® Xeon™ Phi Processor 7250F (16GB, 1.40 GHz, 68 core)	Oct. 2016	68/272	1.4 GHz	230 W	DDR4-2400	Yes	34 MB
Intel® Xeon™ Phi Processor 7230F (16GB, 1.30 GHz, 64 core)	Oct. 2016	64/256	1.3 GHz	230 W	DDR4-2400	Yes	32 MB
Intel® Xeon™ Phi Processor 7210F (16GB, 1.30 GHz, 64 core)	Oct. 2016	64/256	1.3 GHz	230 W	DDR4-2133	Yes	32 MB



Intel® Xeon Phi™ Coprocessors

Power breakthrough innovations with the highly parallel processing of the Intel® Xeon Phi™ coprocessor. Languages, tools, and applications run smoothly across the full spectrum of Intel® Xeon® processor family-based platforms. Intel Xeon Phi coprocessors provide up to 61 cores, 244 threads, and 1.2 teraFLOPS of performance,^{4,5,6} and they come in a variety of configurations to address diverse hardware, software, workload, performance, and efficiency requirements.

Intel® Xeon Phi™ Coprocessor Product Family for Server Systems

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	CACHE	NO. OF CORES	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	THERMAL	UPC CODE
Intel® Xeon Phi™ Coprocessor 7120P	SC7120P	1.238 GHz	30.5 MB	61	✓	300 W	Passive thermal	7 35858 25903 3
Intel® Xeon Phi™ Coprocessor 7120X	SC7120X	1.238 GHz	30.5 MB	61	✓	300 W	No thermal	7 35858 26332 0
Intel® Xeon Phi™ Coprocessor 5120D	SC5120D	1.053 GHz	30 MB	60		245 W	No thermal, dense form factor	7 35858 25910 1
Intel® Xeon Phi™ Coprocessor 5110P	SC5110P	1.053 GHz	30 MB	60		225 W	Passive thermal	7 35858 25382 6
Intel® Xeon Phi™ Coprocessor 3120A	SC3120A	1.10 GHz	28.5 MB	57		300 W	Active thermal	7 35858 25906 4
Intel® Xeon Phi™ Coprocessor 3120P	SC3120P	1.10 GHz	28.5 MB	57		300 W	Passive thermal	7 35858 25908 8

Software And Warranty Options for Intel® Xeon Phi™ Coprocessor Product Family

PROCESSOR NAME ¹	PRODUCT CODE	DESCRIPTION	UPC CODE
Optional 3 Year Warranty	XPX100WRNTY	Optional 3 year limited warranty that must be purchased at the same time as Intel® Xeon Phi™ coprocessor	N/A
Starter Kit #1	SC3120AKIT	Intel Xeon Phi Coprocessor 3120A and Parallels Studio XE software	N/A
Starter Kit #2	SC5110PKIT	Intel Xeon Phi Coprocessor 5110P and Cluster Studio XE software	N/A

INTEL® XEON® PROCESSOR E7-8800 / 4800 V4 FAMILY

Introducing the New Intel Xeon Processor E7-8800/ 4800 v4 Product Family

Unleash exceptional performance for your most demanding data workloads. Fast track your business for real-time analytics and in-memory computing with the secure, reliable, performance workhorse that is the Intel® Xeon® processor E7-8800/4800 v4 product families. Designed for the most mission-critical workloads and the always-on enterprise, the processor combines large memory capacities with leading performance, reliability, and virtualization capabilities to keep your data center supplying business advantage without interruption.



Intel® Xeon® Processor E7-8800 v4 Product Family for Server / Workstation Systems Featuring Up to Eight LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER
Intel® Xeon® processor E7-8893 v4	CM8066902065502	3.20 GHz	9.6 GT/s	60M	1866 MHz (DDR4) 1600 MHz (DDR3)	4/8	✓	✓	140 W
Intel® Xeon® processor E7-8891 v4	CM8066902027903	2.80 GHz	9.6 GT/s	60M	1866 MHz (DDR4) 1600 MHz (DDR3)	10/20	✓	✓	165 W
Intel® Xeon® processor E7-8867 v4	CM8066902028403	2.40 GHz	9.6 GT/s	45M	1866 MHz (DDR4) 1600 MHz (DDR3)	18/36	✓	✓	165 W
Intel® Xeon® processor E7-8890 v4	CM8066902885200	2.20 GHz	9.6 GT/s	60M	1866 MHz (DDR4) 1600 MHz (DDR3)	24/48	✓	✓	165 W
Intel® Xeon® processor E7-8880 v4	CM8066902325500	2.20 GHz	9.6 GT/s	55M	1866 MHz (DDR4) 1600 MHz (DDR3)	22/44	✓	✓	150 W
Intel® Xeon® processor E7-8870 v4	CM8066902025802	2.10 GHz	9.6 GT/s	50M	1866 MHz (DDR4) 1600 MHz (DDR3)	20/40	✓	✓	140 W
Intel® Xeon® processor E7-8860 v4	CM8066902325800	2.20 GHz	9.6 GT/s	45M	1866 MHz (DDR4) 1600 MHz (DDR3)	18/36	✓	✓	140 W

Intel® Xeon® Processor E7-4800 v4 Product Family for Server / Workstation Systems Featuring Up to Four LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER
Intel® Xeon® processor E7-4850 v4	CM8066902026904	2.10 GHz	8.0 GT/s	40M	1866 MHz (DDR4) 1600 MHz (DDR3)	16/32	✓	✓	115 W
Intel® Xeon® processor E7-4830 v4	CM8066902027102	2.00 GHz	8.0 GT/s	35M	1866 MHz (DDR4) 1600 MHz (DDR3)	14/28	✓	✓	115 W
Intel® Xeon® processor E7-4820 v4	CM8066902027500	2.00 GHz	6.4 GT/s	25M	1866 MHz (DDR4) 1333 MHz (DDR3)	10/20	✓		115 W
Intel® Xeon® processor E7-4809 v4	CM8066902027604	2.10 GHz	6.4 GT/s	20M	1866 MHz (DDR4) 1333 MHz (DDR3)	8/16	✓		115 W

INTEL® XEON® PROCESSOR E7-8800 / 4800 V3 FAMILY

Introducing the New Intel Xeon Processor E7-8800/ 4800 v3 Product Family

In Q2 2015, Intel will launch the next-generation processor family in the Mission Critical and Expandable Segment for server platforms with 2, 4, and 8+ sockets. The Intel® Xeon® Processor E7-8800/4800 v3 family will offer top-of-the-line performance, scalability, and reliability for enterprise and mission critical workloads, including advanced analytics, databases, virtualization, and scale-up HPC. Based on Haswell¹ microarchitecture on the 22nm process technology, the Intel Xeon Processor E7-8800/4800 v3 family will introduce performance improvements, new RAS capabilities, and new power and thermal management capabilities, as well as support for DDR4 memory.



Intel® Xeon® Processor E7-8800 v3 Product Family for Server / Workstation Systems Featuring Up to Eight LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER
Intel® Xeon® processor E7-8893 v3	CM8064501753602	3.20 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	4/8	✓	✓	140 W
Intel® Xeon® processor E7-8891 v3	CM8064501552202	2.80 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	10/20	✓	✓	165 W
Intel® Xeon® processor E7-8890 v3	CM8064501549928	2.50 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	18/36	✓	✓	165 W
Intel® Xeon® processor E7-8880 v3	CM8064501550002	2.30 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	18/36	✓	✓	150 W
Intel® Xeon® processor E7-8880L v3	CM8064501552522	2.00 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	18/36	✓	✓	115 W
Intel® Xeon® processor E7-8870 v3	CM8064501550107	2.10 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	18/36	✓	✓	140 W
Intel® Xeon® processor E7-8867 v3	CM8064502025001	2.50 GHz	9.60 GT/s	45 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	16/32	✓	✓	165 W
Intel® Xeon® processor E7-8860 v3	CM8064502017900	2.20 GHz	9.60 GT/s	40 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	16/32	✓	✓	140 W

Intel® Xeon® Processor E7-4800 v3 Product Family for Server / Workstation Systems Featuring Up to Four LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER
Intel® Xeon® processor E7-4850 v3	CM8064501551702	2.20 GHz	8 GT/s	35 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	18/28	✓	✓	115 W
Intel® Xeon® processor E7-4830 v3	CM8064502020101	2.10 GHz	8 GT/s	30 MB	1866 MHz (DDR4) 1600 MHz (DDR3)	12/24	✓	✓	115 W
Intel® Xeon® processor E7-4820 v3	CM8064502020200	1.90 GHz	6.40 GT/s	25 MB	1866 MHz (DDR4) 1333 MHz (DDR3)	10/20	✓		115 W
Intel® Xeon® processor E7-4809 v3	CM8064501551526	2.00 GHz	6.40 GT/s	20 MB	1866 MHz (DDR4) 1333 MHz (DDR3)	8/16	✓		115 W

INTEL® XEON® PROCESSOR E7-8800 / 4800 / 2800 V2 FAMILY

Intel® Xeon® Processor E7-8800 / 4800 / 2800 v2 Product Families

Rapidly process and analyze large amounts of data in near real time with the Intel® Xeon® processor E7-8800 / 4800 / 2800 v2 product families.

Keep data local with up to 1.5 TB of memory per socket to manage data-demanding, transaction-intensive workloads. Intel® Run Sure Technology² helps increase system uptime and data integrity for business-critical solutions. Hardware-embedded security features help better protect data and provide a safer environment.



Intel® Xeon® Processor E7-8800 v2 Product Family for Server / Workstation Systems Featuring Eight LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E7-8893 v2	CM8063601454907	3.40 GHz	8 GT/s	37.5 MB	1600 MHz	6/12	✓	✓	155 W	N/A
Intel® Xeon® processor E7-8891 v2	CM8063601377422	3.20 GHz	8 GT/s	37.5 MB	1600 MHz	10/20	✓	✓	155 W	N/A
Intel® Xeon® processor E7-8890 v2	CM8063601213513	2.80 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	155 W	N/A
Intel® Xeon® processor E7-8880 v2	CM8063601271810	2.50 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	130 W	N/A
Intel® Xeon® processor E7-8880L v2	CM8063601275812	2.20 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	105 W	N/A
Intel® Xeon® processor E7-8870 v2	CM8063601272006	2.30 GHz	8 GT/s	30 MB	1600 MHz	15/30	✓	✓	130 W	N/A
Intel® Xeon® processor E7-8857 v2	CM8063601275912	3.00 GHz	8 GT/s	30 MB	1600 MHz	12/12		✓	130 W	N/A
Intel® Xeon® processor E7-8850 v2	CM8063601272306	2.30 GHz	7.20 GT/s	24 MB	1333 MHz	12/24	✓	✓	105 W	N/A

Intel® Xeon® Processor E7-4800 v2 Product Family for Server / Workstation Systems Featuring Four LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E7-4890 v2	CM8063601272412	2.80 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	155 W	N/A
Intel® Xeon® processor E7-4880 v2	CM8063601272512	2.50 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	130 W	N/A
Intel® Xeon® processor E7-4870 v2	CM8063601272606	2.30 GHz	8 GT/s	30 MB	1600 MHz	15/30	✓	✓	130 W	N/A
Intel® Xeon® processor E7-4860 v2	CM8063601453406	2.60 GHz	8 GT/s	30 MB	1600 MHz	12/24	✓	✓	130 W	N/A
Intel® Xeon® processor E7-4850 v2	CM8063601272906	2.30 GHz	7.20 GT/s	24 MB	1333 MHz	12/24	✓	✓	105 W	N/A
Intel® Xeon® processor E7-4830 v2	CM8063601374506	2.20 GHz	7.20 GT/s	20 MB	1333 MHz	10/20	✓	✓	105 W	N/A
Intel® Xeon® processor E7-4820 v2	CM8063601521707	2.00 GHz	7.20 GT/s	16 MB	1333 MHz	8/16	✓	✓	105 W	N/A
Intel® Xeon® processor E7-4809 v2	CM8063601537106	1.90 GHz	6.40 GT/s	12 MB	1066 MHz	6/12	✓		105 W	N/A

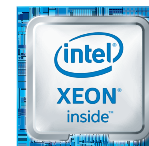
Intel® Xeon® Processor E7-2800 v2 Product Family for Server / Workstation Systems Featuring Two LGA2011-1 Sockets

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E7-2890 v2	CM8063601375306	2.80 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	155 W	N/A
Intel® Xeon® processor E7-2880 v2	CM8063601273306	2.50 GHz	8 GT/s	37.5 MB	1600 MHz	15/30	✓	✓	130 W	N/A
Intel® Xeon® processor E7-2870 v2	CM8063601273406	2.30 GHz	8 GT/s	30 MB	1600 MHz	15/30	✓	✓	130 W	N/A
Intel® Xeon® processor E7-2850 v2	CM8063601275706	2.30 GHz	7.20 GT/s	24 MB	1333 MHz	12/24	✓	✓	105 W	N/A

INTEL® XEON® PROCESSOR E5-4600 V4 FAMILY

Introducing the New Intel® Xeon® Processor E5-4600 v4 Product Family

Four-socket servers based on the Intel® Xeon® processor E5-4600 v4 product family provide high-density, cost-optimized, energy-efficient compute resources to support larger workloads and high virtual machine densities for the data center or cloud.



Intel® Xeon® Processor E5-4600 v4 Product Family for Server / Workstation Systems

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER
Intel® Xeon® processor E5-4660 v4	CM8066002062605	2.20 GHz	9.6 GT/s	40 MB	DDR4-2400 MHz	16/32	✓	✓	120 W
Intel® Xeon® processor E5-4650 v4	CM8066002028621	2.20 GHz	9.6 GT/s	35 MB	DDR4-2400 MHz	14/28	✓	✓	105 W
Intel® Xeon® processor E5-4640 v4	CM8066002061701	2.10 GHz	8.0 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	105 W
Intel® Xeon® processor E5-4620 v4	CM8066002883900	2.10 GHz	8.0 GT/s	25 MB	DDR4-2133 MHz	10/20	✓	✓	105 W
Intel® Xeon® processor E5-4610 v4	CM8066002062800	1.80 GHz	6.4 GT/s	25 MB	DDR4-1866 MHz	10/20	✓		105 W
Intel® Xeon® processor E5-4669 v4	CM8066002064800	2.20 GHz	9.6 GT/s	55 MB	DDR4-2400 MHz	22/44	✓	✓	135 W
Intel® Xeon® processor E5-4667 v4	CM8066002064600	2.20 GHz	9.6 GT/s	45 MB	DDR4-2400 MHz	18 /36	✓	✓	135 W
Intel® Xeon® processor E5-4655 v4	CM8066002065000	2.50 GHz	9.6 GT/s	30 MB	DDR4-2400 MHz	8/16	✓	✓	135 W
Intel® Xeon® processor E5-4627 v4	CM8066002330800	2.60 GHz	9.6 GT/s	25 MB	DDR4-2400 MHz	10/10		✓	135 W

INTEL® XEON® PROCESSOR E5-4600 V3 FAMILY

Introducing the New Intel® Xeon® Processor E5-4600 v3 Product Family

Available Q2 2015, the Intel® Xeon® processor E5-4600 v3 product family is a 4-socket server platform that supports DDR4 memory technology. Target applications and usage models include large memory databases that need a highly scalable number of cores and memory bandwidth per server, and large-scale online transaction processing workloads where high-speed and large capacity memory configurations are required.



Intel® Xeon® Processor E5-4600 v3 Product Family for Server / Workstation Systems

PROCESSOR NAME ¹	PRODUCT CODE (TRAY ONLY)	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER
Intel® Xeon® processor E5-4660 v3	CM8064402018700	2.10 GHz	9.60 GT/s	35 MB	2133 MHz	14/28	✓	✓	120 W
Intel® Xeon® processor E5-4650 v3	CM8064401441008	2.10 GHz	9.60 GT/s	30 MB	2133 MHz	12/24	✓	✓	105 W
Intel® Xeon® processor E5-4640 v3	CM8064401442601	1.90 GHz	8 GT/s	30 MB	1866 MHz	12/24	✓	✓	105 W
Intel® Xeon® processor E5-4620 v3	CM8064401442401	2.00 GHz	8 GT/s	25 MB	1866 MHz	10/20	✓	✓	105 W
Intel® Xeon® processor E5-4610 v3	CM8064402018800	1.70 GHz	6.40 GT/s	25 MB	1600 MHz	10/20	✓		105 W
Intel® Xeon® processor E5-4669 v3	CM8064401864100	2.10 GHz	9.60 GT/s	45 MB	2133 MHz	18/36	✓	✓	135 W
Intel® Xeon® processor E5-4667 v3	CM8064401864200	2.00 GHz	9.60 GT/s	40 MB	2133 MHz	16/32	✓	✓	135 W
Intel® Xeon® processor E5-4655 v3	CM8064402018600	2.90 GHz	9.60 GT/s	30 MB	2133 MHz	6/12	✓	✓	135 W
Intel® Xeon® processor E5-4627 v3	CM8064401544203	2.60 GHz	8 GT/s	25 MB	2133 MHz	10/10		✓	135 W

INTEL® XEON® PROCESSOR E5-2600 / 1600 V4 FAMILY

Intel® Xeon® Processor E5-2600 v4 Product Family

The powerful new Intel® Xeon® processor E5-2600 v4 product family offers versatility across diverse workloads. These processors are designed for architecting next-generation data centers running on, software defined infrastructure supercharged for efficiency, performance, and agile services delivery across cloud-native and traditional applications. They support workloads for cloud, high-performance computing, networking, and storage.



Intel® Xeon® Processor E5-2600 v4 Product Family for Server and Workstation Systems

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
SERVER SKUS										
Intel® Xeon® Processor E5-2699 v4	CM8066002022506 (tray)	2.20 GHz	9.6 GT/s	55M	DDR4-2400 MHz	22/44	✓	2.0	145	N/A
Intel® Xeon® Processor E5-2698 v4	CM8066002024000 (tray)	2.20 GHz	9.6 GT/s	50M	DDR4-2400 MHz	20/40	✓	2.0	135	N/A
Intel® Xeon® Processor E5-2697 v4	CM8066002023907 (tray) BX80660E52697V4 (box)	2.30 GHz	9.6 GT/s	45M	DDR4-2400 MHz	18/36	✓	2.0	145	735858310574
Intel® Xeon® Processor E5-2697A v4	CM8066002645900 (tray)	2.60 GHz	9.6 GT/s	40M	DDR4-2400 MHz	16/32	✓	2.0	145	N/A
Intel® Xeon® Processor E5-2695 v4	CM8066002023801 (tray) BX80660E52695V4 (box)	2.10 GHz	9.6 GT/s	45M	DDR4-2400 MHz	18/36	✓	2.0	120W	735858310628
Intel® Xeon® Processor E5-2690 v4	CM8066002030908 (tray) BX80660E52690V4 (box)	2.60 GHz	9.6 GT/s	35M	DDR4-2400 MHz	14/28	✓	2.0	135W	735858310857
Intel® Xeon® Processor E5-2683 v4	CM8066002023604 (tray) BX80660E52683V4 (box)	2.10 GHz	9.6 GT/s	40M	DDR4-2400 MHz	16/32	✓	2.0	120W	735858310529
Intel® Xeon® Processor E5-2680 v4	CM8066002031501 (tray) BX80660E52680V4 (box)	2.40 GHz	9.6 GT/s	35M	DDR4-2400 MHz	14/28	✓	2.0	120W	735858310802
Intel® Xeon® Processor E5-2660 v4	CM8066002030908 (tray) BX80660E52660V4 (box)	2.00 GHz	9.6 GT/s	35M	DDR4-2400 MHz	14/28	✓	2.0	105W	735858310758
Intel® Xeon® Processor E5-2650 v4	CM8066002031103 (tray) BX80660E52650V4 (box)	2.20 GHz	9.6 GT/s	30M	DDR4-2400 MHz	12/24	✓	2.0	105W	735858310703

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Intel® Xeon® Processor E5-2600 v4 Product Family for Server and Workstation Systems

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
SERVER SKUS										
Intel® Xeon® Processor E5-2640 v4	CM8066002032701 (tray) BX80660E52640V4 (box)	2.40 GHz	9.6 GT/s	25M	DDR4-2133 MHz	10/20	✓	2.0	90W	735858314220
Intel® Xeon® Processor E5-2630v4	CM8066002032301 (tray) BX80660E52630V4 (box)	2.20 GHz	8 GT/s	25M	DDR4-2133 MHz	10/20	✓	2.0	85W	735858314121
Intel® Xeon® Processor E5-2620v4	CM8066002032201 (tray) BX80660E52620V4 (box)	2.10 GHz	8 GT/s	20M	DDR4-2133 MHz	8/16	✓	2.0	85W	735858314077
Intel® Xeon® Processor E5-2609v4	CM8066002032901 (tray) BX80660E52609V4 (box)	1.70 GHz	8 GT/s	20M	DDR4-1866 MHz	8/8	✓	2.0	85W	735858314022
Intel® Xeon® Processor E5-2603v4	CM8066002032805 (tray) BX80660E52603V4 (box)	1.70 GHz	6.4 GT/s	15M	DDR4-1866 MHz	6	✓	2.0	85W	735858313971
Intel® Xeon® Processor E5-2650L v4	CM8066002033006 (tray)	1.70 GHz	9.6 GT/s	35M	DDR4-2400 MHz	14/28	✓	2.0	65W	N/A
Intel® Xeon® Processor E5-2630L v4	CM8066002033202 (tray)	1.80 GHz	8 GT/s	20M	DDR4-2133 MHz	10/20	✓	2.0	55W	N/A
Intel® Xeon® Processor E5-2667 v4	CM8066002041900 (tray)	3.20 GHz	9.6 GT/s	25M	DDR4-2400 MHz	8/16	✓	2.0	135W	N/A
Intel® Xeon® Processor E5-2643 v4	CM8066002041500 (tray)	3.40 GHz	9.6 GT/s	20M	DDR4-2400 MHz	6/12	✓	2.0	135W	N/A
Intel® Xeon® Processor E5-2637 v4	CM8066002041100 (tray)	3.50 GHz	9.6 GT/s	15M	DDR4-2400 MHz	4/8	✓	2.0	135W	N/A
Intel® Xeon® Processor E5-2623 v4	CM8066002402400 (tray)	2.60 GHz	8 GT/s	10M	DDR4-2133 MHz	4/8	✓	2.0	85W	N/A
WORKSTATION SKU										
Intel® Xeon® Processor E5-2687W v4	CM8066002042802 (tray) BX80660E52687V4 (box)	3.0GHz	9.6 GT/s	30M	DDR4-2400 MHz	12/24	✓	2.0	160W	735858310901

INTEL® SERVER / WORKSTATION PROCESSORS

Intel® Xeon® Processor E5-1600 v4 Product Family for Server and Workstation Systems

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
SERVER SKUS										
Intel® Xeon® Processor E5-1680 v4	CM8066002044401 (tray)	3.40 GHz	0 GT/s QPI	20M	DDR4-2400 MHz	8/16	✓	2.0	140W	N/A
Intel® Xeon® Processor E5-1660 v4	CM8066002646401 (tray)	3.20 GHz	0 GT/s QPI	20M	DDR4-2400 MHz	8/16	✓	2.0	140W	N/A
Intel® Xeon® Processor E5-1650 v4	CM8066002044306 (tray) BX80660E51650V4 (box)	3.60 GHz	0 GT/s QPI	15M	DDR4-2400 MHz	3/12	✓	2.0	140W	735858318952
Intel® Xeon® Processor E5-1630 v4	CM8066002395300 (tray)	3.70 GHz	0 GT/s QPI	10M	DDR4-2400 MHz	4/8	✓	2.0	140W	N/A
Intel® Xeon® Processor E5-1620 v4	CM8066002044103 (tray) BX80660E51620V4 (box)	3.50 GHz	0 GT/s QPI	10M	DDR4-2400 MHz	4/8	✓	2.0	140W	735858314176
WORKSTATION SKU										
Intel® Xeon® Processor E5-1650 v4	BX80660E51650V4 (box)	3.60 GHz	0 GT/s QPI	15M	DDR4-2400 MHz	3/12	✓	2.0	140W	

INTEL® XEON® PROCESSOR E5-2600 / 1600 V3 FAMILY

Intel® Xeon® Processor E5-2600 / 1600 v3 Product Family

Intel® Xeon® processor E5-2600 / 1600 v3 product families are at the heart of an agile, efficient data center and help meet your needs for compute, storage, and network. These energy-efficient marvels are designed to help deliver a combination of performance, built-in capabilities, and cost-effectiveness. Whether addressing technical computing challenges, enabling cloud deployments, delivering intelligent storage, or powering design automation and data analytics, enjoy better-than-ever performance. Help better safeguard your data and infrastructure with technology foundational for greater security. Break challenging data management performance bottlenecks with 40 gigabit Intel® Ethernet, DDR4 support, and innovative storage features. Built-in capabilities that measure and monitor make Intel-powered platforms the smart choice for a software-defined world. With the flexibility and versatility of the Intel Xeon processor E5-2600 / 1600 v3 families, you only have to remember one thing: It's what's inside that counts.



Intel® Xeon® Processor E5-2600 v3 Product Family for Server and Workstation Systems Featuring Two LGA2011 Sockets (Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
ADVANCED SKUS										
Intel® Xeon® processor E5-2690 v3	BX80644E52690V3 (box) CM8064401439416 (tray)	2.60 GHz	9.60 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	135 W	7 35858 28363 2
Intel® Xeon® processor E5-2680 v3	BX80644E52680V3 (box) CM8064401439612 (tray)	2.50 GHz	9.60 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	120 W	7 35858 28358 8
Intel® Xeon® processor E5-2670 v3	BX80644E52670V3 (box) CM8064401544801 (tray)	2.30 GHz	9.60 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	120 W	7 35858 28368 7
Intel® Xeon® processor E5-2660 v3	BX80644E52660V3 (box) CM8064401446117 (tray)	2.60 GHz	9.60 GT/s	25 MB	DDR4-2133 MHz	10/20	✓	✓	105 W	7 35858 28353 3
Intel® Xeon® processor E5-2650 v3	BX80644E52650V3 (box) CM8064401723701 (tray)	2.30 GHz	9.60 GT/s	25 MB	DDR4-2133 MHz	10/20	✓	✓	105 W	7 35858 28378 6
STANDARD SKUS										
Intel® Xeon® processor E5-2640 v3	BX80644E52640V3 (box) CM8064401830901 (tray)	2.60 GHz	8 GT/s	20 MB	DDR4-1866 MHz	8/16	✓	✓	90 W	7 35858 28522 3
Intel® Xeon® processor E5-2630 v3	BX80644E52630V3 (box) CM8064401831000 (tray)	2.40 GHz	8 GT/s	20 MB	DDR4-1866 MHz	8/16	✓	✓	85 W	7 35858 28533 9
Intel® Xeon® processor E5-2620 v3	BX80644E52620V3 (box) CM8064401831400 (tray)	2.40 GHz	8 GT/s	15 MB	DDR4-1866 MHz	8/16	✓	✓	85 W	7 35858 28538 4
BASIC SKUS										
Intel® Xeon® processor E5-2609 v3	BX80644E52609V3 (box) CM8064401850800 (tray)	1.90 GHz	6.40 GT/s	15 MB	DDR4-1600 MHz	6/6			85 W	7 35858 28373 1
Intel® Xeon® processor E5-2603 v3	BX80644E52603V3 (box) CM8064401844200 (tray)	1.60 GHz	6.40 GT/s	15 MB	DDR4-1600 MHz	6/6			85 W	7 35858 28517 9

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PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
SEGMENT-OPTIMIZED SKUS										
Intel® Xeon® processor E5-2699 v3	CM8064401739300 (tray only)	2.30 GHz	9.60 GT/s	45 MB	DDR4-2133 MHz	18 / 36	✓	✓	145 W	N/A
Intel® Xeon® processor E5-2698 v3	CM8064401609800 (tray only)	2.30 GHz	9.60 GT/s	40 MB	DDR4-2133 MHz	16 / 26	✓	✓	135 W	N/A
Intel® Xeon® processor E5-2697 v3	BX80644E52697V3 (box) CM8064401807100 (tray)	2.60 GHz	9.60 GT/s	35 MB	DDR4-2133 MHz	14 / 28	✓	✓	145 W	7 35858 28264 2
Intel® Xeon® processor E5-2695 v3	BX80644E52695V3 (box) CM8064401438110 (tray)	2.30 GHz	9.60 GT/s	35 MB	DDR4-2133 MHz	14 / 28	✓	✓	120 W	7 35858 28269 7
Intel® Xeon® processor E5-2683 v3	CM8064401609728 (tray only)	2 GHz	9.60 GT/s	35 MB	DDR4-2133 MHz	14 / 28	✓	✓	120 W	N/A
WORKSTATION SKUS										
Intel® Xeon® processor E5-2687W v3	BX80644E52687V3 (box) CM8064401613502 (tray)	3.10 GHz	9.60 GT/s	25 MB	DDR4-2133 MHz	10/20	✓	✓	160 W	7 35858 28348 9
FREQUENCY-OPTIMISED SKUS										
Intel® Xeon® processor E5-2667 v3	CM8064401724301 (tray only)	3.20 GHz	9.60 GT/s	20 MB	DDR4-2133 MHz	8/16	✓	✓	135 W	N/A
Intel® Xeon® processor E5-2643 v3	CM8064401724501 (tray only)	3.40 GHz	9.60 GT/s	20 MB	DDR4-2133 MHz	6/12	✓	✓	135 W	N/A
Intel® Xeon® processor E5-2637 v3	CM8064401724101 (tray only)	3.50 GHz	9.60 GT/s	15 MB	DDR4-2133 MHz	4/8	✓	✓	135 W	N/A
Intel® Xeon® processor E5-2623 v3	CM8064401832000 (tray only)	3 GHz	8 GT/s	10 MB	DDR4-1866 MHz	4/8	✓	✓	105 W	N/A
LOW-POWER SKUS										
Intel® Xeon® processor E5-2650L v3	CM8064401575702 (tray only)	1.80 GHz	9.60 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	65 W	N/A
Intel® Xeon® processor E5-2630L v3	CM8064401832100 (tray only)	1.80 GHz	8 GT/s	20 MB	DDR4-1866 MHz	8/16	✓	✓	55 W	N/A
EMBEDDED SKUS										
Intel® Xeon® processor E5-2658 v3	CM8064401545904 (tray only)	2.20 GHz	9.60 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	105 W	N/A
Intel® Xeon® processor E5-2648L v3	CM8064401546007 (tray only)	1.80 GHz	9.60 GT/s	30 MB	DDR4-2133 MHz	12/24	✓	✓	75 W	N/A
Intel® Xeon® processor E5-2628L v3	CM8064401547200 (tray only)	2 GHz	8 GT/s	25 MB	DDR4-1866 MHz	10/20	✓	✓	75 W	N/A
Intel® Xeon® processor E5-2622 v3	CM8064401576904 (tray only)	2.40 GHz	8 GT/s	20 MB	DDR4-1866 MHz	8/16	✓	✓	85 W	N/A
Intel® Xeon® processor E5-2618L v3	CM8064401610301 (tray only)	2.30 GHz	8 GT/s	20 MB	DDR4-1866 MHz	8/16	✓	✓	75 W	N/A
Intel® Xeon® processor E5-2608L v3	CM8064401909500 (tray only)	2 GHz	6.40 GT/s	15 MB	DDR4-1866 MHz	6/12	✓		52 W	N/A



Intel® Xeon® Processor E5-1600 v3 Product Family for Workstation Systems Featuring One LGA2011 Socket (Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
ADVANCED SKUS									
Intel® Xeon® processor E5-1680 v3	CM8064401547809 (tray only)	3.20 GHz	20 MB	DDR4-2133 MHz	8/16	✓	✓	140 W	N/A
Intel® Xeon® processor E5-1660 v3	CM8064401909200 (tray only)	3 GHz	20 MB	DDR4-2133 MHz	8/16	✓	✓	140 W	N/A
Intel® Xeon® processor E5-1650 v3	CM8064401548111 (tray only)	3.50 GHz	15 MB	DDR4-2133 MHz	6/12	✓	✓	140 W	N/A
Intel® Xeon® processor E5-1630 v3	CM8064401614501 (tray only)	3.70 GHz	10 MB	DDR4-2133 MHz	4/8	✓	✓	140 W	N/A
Intel® Xeon® processor E5-1620 v3	CM8064401973600 (tray only)	3.50 GHz	10 MB	DDR4-2133 MHz	4/8	✓	✓	140 W	N/A

INTEL® XEON® PROCESSOR E5-4600 / 2600 / 2400 / 1600 V2 FAMILY

Intel® Xeon® Processor E5-4600 / 2600 / 2400 / 1600 v2 Product Families

The Intel® Xeon® processor E5-2600 / 1600 v2, E5-2400 v2, and E5-4600 v2 product families are at the heart of an agile, efficient data center. Deploy a more trusted private cloud with the technology foundational for greater security. Put the “instantaneous” into data analysis with the performance to quickly process big data. These new Intel Xeon processor families enable greater energy efficiency and power management for a range of enterprise applications.



Intel® Xeon® Processor E5-4600 v2 Product Family for Server Systems Featuring Four LGA2011 Sockets

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E5-4657L v2	CM8063501285605 (tray only)	2.40 GHz	8 GT/s	30 MB	1866 MHz	12/24	✓	✓	115 W	N/A
Intel® Xeon® processor E5-4650 v2	CM8063501541700 (tray only)	2.40 GHz	8 GT/s	25 MB	1866 MHz	10/20	✓	✓	95 W	N/A
Intel® Xeon® processor E5-4640 v2	CM8063501285713 (tray only)	2.20 GHz	8 GT/s	20 MB	1866 MHz	10/20	✓	✓	95 W	N/A
Intel® Xeon® processor E5-4627 v2	CM8063501454002 (tray only)	3.30 GHz	7.20 GT/s	16 MB	1866 MHz	8/8		✓	130 W	N/A
Intel® Xeon® processor E5-4624L v2	CM8063501293407 (tray only)	1.90 GHz	8 GT/s	25 MB	1866 MHz	10/20	✓	✓	70 W	N/A
Intel® Xeon® processor E5-4620 v2	CM8063501393202 (tray only)	2.60 GHz	7.20 GT/s	20 MB	1600 MHz	8/16	✓	✓	95 W	N/A
Intel® Xeon® processor E5-4610 v2	CM8063501521600 (tray only)	2.30 GHz	7.20 GT/s	16 MB	1600 MHz	8/16	✓	✓	95 W	N/A
Intel® Xeon® processor E5-4607 v2	CM8063501377604 (tray only)	2.60 GHz	6.40 GT/s	12 MB	1333 MHz	6/12	✓	✓	95 W	N/A
Intel® Xeon® processor E5-4603 v2	CM8063501453800 (tray only)	2.20 GHz	6.40 GT/s	10 MB	1333 MHz	4/8	✓	✓	95 W	N/A



Intel® Xeon® Processor E5-2600 v2 Product Family for Server / Workstation Systems Featuring Two LGA2011 Sockets

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E5-2697 v2	BX80635E52697V2 (box) CM8063501288843 (tray)	2.70 GHz	8 GT/s	30 MB	1866 MHz	12/24	✓	✓	130 W	7 35858 26666 6
Intel® Xeon® processor E5-2695 v2	BX80635E52695V2 (box) CM8063501288706 (tray)	2.40 GHz	8 GT/s	30 MB	1866 MHz	12/24	✓	✓	115 W	7 35858 26671 0
Intel® Xeon® processor E5-2690 v2	BX80635E52690V2 (box) CM8063501374802 (tray)	3 GHz	8 GT/s	25 MB	1866 MHz	10/20	✓	✓	130 W	7 35858 26832 5
Intel® Xeon® processor E5-2687W v2	BX80635E52687V2 (box) CM8063501287203 (tray)	3.10 GHz	8 GT/s	20 MB	1866 MHz	8/16	✓	✓	150 W	7 35858 26922 3
Intel® Xeon® processor E5-2680 v2	BX80635E52680V2 (box) CM8063501374901 (tray)	2.80 GHz	8 GT/s	25 MB	1866 MHz	10/20	✓	✓	130 W	7 35858 26837 0
Intel® Xeon® processor E5-2670 v2	BX80635E52670V2 (box) CM8063501375000 (tray)	2.50 GHz	8 GT/s	20 MB	1866 MHz	10/20	✓	✓	115 W	7 35858 26842 4
Intel® Xeon® processor E5-2667 v2	CM8063501287304 (tray only)	3.30 GHz	8 GT/s	25 MB	1866 MHz	8/16	✓	✓	130 W	N/A
Intel® Xeon® processor E5-2660 v2	BX80635E52660V2 (box) CM8063501452503 (tray)	2.20 GHz	8 GT/s	25 MB	1866 MHz	10/20	✓	✓	95 W	7 35858 26847 9
Intel® Xeon® processor E5-2650 v2	BX80635E52650V2 (box) CM8063501375101 (tray)	2.60 GHz	8 GT/s	20 MB	1866 MHz	8/16	✓	✓	95 W	7 35858 26852 3
Intel® Xeon® processor E5-2650L v2	CM8063501287602 (tray only)	1.70 GHz	7.20 GT/s	25 MB	1600 MHz	10/20	✓	✓	70 W	N/A
Intel® Xeon® processor E5-2643 v2	CM8063501287403 (tray only)	3.50 GHz	8 GT/s	25 MB	1866 MHz	6/12	✓	✓	130 W	N/A
Intel® Xeon® processor E5-2640 v2	BX80635E52640V2 (box) CM8063501288202 (tray)	2 GHz	7.20 GT/s	20 MB	1600 MHz	8/16	✓	✓	95 W	7 35858 26857 8
Intel® Xeon® processor E5-2637 v2	CM8063501520800 (tray only)	3.50 GHz	8 GT/s	15 MB	1866 MHz	4/8	✓	✓	130 W	N/A
Intel® Xeon® processor E5-2630 v2	BX80635E52630V2 (box) CM8063501288100 (tray)	2.60 GHz	7.20 GT/s	15 MB	1600 MHz	6/12	✓	✓	80 W	7 35858 26884 4
Intel® Xeon® processor E5-2630L v2	CM8063501376200 (tray only)	2.40 GHz	7.20 GT/s	15 MB	1600 MHz	6/12	✓	✓	80 W	N/A
Intel® Xeon® processor E5-2620 v2	BX80635E52620V2 (box) CM8063501288301 (tray)	2.10 GHz	7.20 GT/s	15 MB	1600 MHz	6/12	✓	✓	80 W	735858 26889 9
Intel® Xeon® processor E5-2609 v2	BX80635E52609V2 (box) CM8063501375800 (tray)	2.50 GHz	6.40 GT/s	10 MB	1333 MHz	4/4			80 W	7 35858 26894 3
Intel® Xeon® processor E5-2603 v2	BX80635E52603V2 (box) CM8063501375902 (tray)	1.80 GHz	6.40 GT/s	10 MB	1333 MHz	4/4			80 W	7 35858 26899 8



Intel® Xeon® Processor E5-2400 v2 Product Family for Server / Workstation Systems Featuring Two LGA2011 Sockets

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ³ SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E5-2470 v2	BX80634E52470V2 (box) CM8063401286102 (tray)	2.40 GHz	8 GT/s	25 MB	1600 MHz	10/20	✓	✓	95 W	7 35858 27206 3
Intel® Xeon® processor E5-2450 v2	BX80634E52450V2 (box) CM8063401376400 (tray)	2.50 GHz	8 GT/s	20 MB	1600 MHz	8/16	✓	✓	95 W	7 35858 27211 7
Intel® Xeon® processor E5-2450L v2	CM8063401287001 (tray only)	1.70 GHz	8 GT/s	20 MB	1600 MHz	8/16	✓	✓	70 W	N/A
Intel® Xeon® processor E5-2440 v2	BX80634E52440V2 (box) CM8062000862604 (tray)	1.90 GHz	7.20 GT/s	20 MB	1600 MHz	8/16	✓	✓	95 W	7 35858 27201 8
Intel® Xeon® processor E5-2430 v2	BX80634E52430V2 (box) CM8063401286400 (tray)	2.50 GHz	7.20 GT/s	15 MB	1600 MHz	6/12	✓	✓	80 W	7 35858 27196 7
Intel® Xeon® processor E5-2430L v2	CM8063401376704 (tray only)	2.40 GHz	7.20 GT/s	15 MB	1600 MHz	6/12	✓	✓	60 W	N/A
Intel® Xeon® processor E5-2420 v2	BX80634E52420V2 (box) CM8063401286503 (tray)	2.20 GHz	7.20 GT/s	15 MB	1600 MHz	6/12	✓	✓	80 W	7 35858 27191 2
Intel® Xeon® processor E5-2407 v2	BX80634E52407V2 (box) CM8063401286600 (tray)	2.40 GHz	7.20 GT/s	10 MB	1333 MHz	4/4			80 W	7 35858 27186 8
Intel® Xeon® processor E5-2403 v2	BX80634E52403V2 (box) CM8063401286702 (tray)	1.80 GHz	7.20 GT/s	10 MB	1333 MHz	4/4			80 W	7 35858 27181 3

Intel® Xeon® Processor E5-1600 v2 Product Family for Workstation Systems Featuring One LGA2011 Socket

(Thermal Solution Sold Separately)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E5-1660 v2	BX80635E51660V2 (box) CM8063501291808 (tray)	3.70 GHz	15 MB	1866 MHz	6/12	✓	✓	130 W	7 35858 26927 8
Intel® Xeon® processor E5-1650 v2	CM8063501292204 (tray only)	3.50 GHz	12 MB	1600 MHz	6/12	✓	✓	130 W	N/A
Intel® Xeon® processor E5-1620 v2	CM8063501292405 (tray only)	3.70 GHz	10 MB	1600 MHz	4/8	✓	✓	130 W	N/A

INTEL® XEON® PROCESSOR E3-1500 V5 FAMILY

Introducing the Intel® Xeon® Processor E3-1500 v5 product family—the data center graphics powerhouse

Create visually stunning user experiences at low total cost of ownership with the new Intel® Xeon® processor E3-1500 v5 product family featuring Intel® Iris™ Pro graphics P580.



PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® Processor E3-1585 v5	JQ8066201935710	3.50 GHz	8 MB	2133 MHz	4/8	✓	✓	65W	N/A
Intel® Xeon® Processor E3-1585L v5	JQ8066201935627	3.00 GHz	8 MB	2133 MHz	4/8	✓	✓	45W	N/A
Intel® Xeon® Processor E3-1565L v5	JQ8066201935626	2.50 GHz	8 MB	2133 MHz	4/8	✓	✓	35W	N/A

INTEL® XEON® PROCESSOR E3-1200 V5 FAMILY

Intel® Xeon® Processor E3-1200 v5 Product Family for Server and Workstation Systems

The latest Intel® Xeon® processor E3-1200 v5 product family-based platforms are a smart investment for a wide range of business needs and sizes. In addition to gains in CPU performance, CPU performance per watt, and graphics performance, Intel Xeon processor E3-1200 v5 product family-based platforms offer fast access to data, protect the data's integrity, and have proven reliability for a range of business needs.



PROCESSOR NAME ¹	PRODUCT CODE TRAY	PRODUCT CODE BOX	CLOCK SPEED	CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® Processor E3-1280 v5	CM806620192160		3.7 GHz	8 MB	2133 MHz	4/8	✓	✓	80 W	N/A
Intel® Xeon® Processor E3-1270 v5	CM8066201921712	BX80662E31270V5	3.6 GHz	8 MB	2133 MHz	4/8	✓	✓	80 W	735858301732
Intel® Xeon® Processor E3-1260L v5	CM8066201921903		2.9 GHz	8 MB	2133 MHz	4/8	✓	✓	45 W	N/A
Intel® Xeon® Processor E3-1240L v5	CM8066201935808		2.1 GHz	8 MB	2133 MHz	4/8	✓	✓	25 W	N/A
Intel® Xeon® Processor E3-1240 v5	CM8066201921715	BX80662E31240V5	3.5 GHz	8 MB	2133 MHz	4/8	✓	✓	80 W	735858301855
Intel® Xeon® Processor E3-1230 v5	CM8066201921713	BX80662E31230V5	3.4 GHz	8 MB	2133 MHz	4/8	✓	✓	80 W	735858301916
Intel® Xeon® Processor E3-1220 v5	CM8066201921804	BX80662E31220V5	3 GHz	8 MB	2133 MHz	4/4	✓	✓	80 W	735858302036
Intel® Xeon® Processor E3-1275 v5	CM8066201934909	BX80662E31275V5	3.6 GHz	8 MB	2133 MHz	4/8		✓	80 W	735858301671
Intel® Xeon® Processor E3-1245 v5	CM8066201934913	BX80662E31245V5	3.5 GHz	8 MB	2133 MHz	4/8		✓	80 W	735858301794
Intel® Xeon® Processor E3-1235L v5	CM8066201935807		2 GHz	8 MB	2133 MHz	4/4		✓	25 W	N/A
Intel® Xeon® Processor E3-1225 v5	CM8066201922605	BX80662E31225V5	3.3 GHz	8 MB	2133 MHz	4/4		✓	80 W	735858301978

INTEL® XEON® PROCESSOR E3-1200 V4 FAMILY

Intel® Xeon® Processor E3-1200 v4 Product Family for Server and Workstation Systems

The Intel® Xeon® Processor E3-1200 v4 product family supports up to 1.8x the overall graphics performance of the previous-generation², and delivers high-quality visual experiences with up to 1.4x more video transcoding performance per node⁴ and up to 4,300 simultaneous HD video streams per rack than the previous generation Intel® Xeon® processor E3-1200 v3 product family.³



PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E3-1285 v4 ⁵	CM8065802482701	3.50 GHz	6 MB	1866 MHz	4/8	✓	✓	95 W	N/A
Intel® Xeon® processor E3-1285L v4 ⁵	CM8065802482901	3.40 GHz	6 MB	1866 MHz	4/8	✓	✓	65 W	N/A
Intel® Xeon® processor E3-1265L v4 ⁵	CM8066201937901	2.30 GHz	6 MB	1866 MHz	4/8	✓	✓	35 W	N/A
Intel® Xeon® processor E3-1278L v4 ⁶	FH8065802420303	2.0 GHz	6 MB	1600 MHz	4/8	✓	✓	47 W	N/A
Intel® Xeon® processor E3-1258L v4 ^{6,7}	FH8065802420602	1.8 GHz	6 MB	1600 MHz	4/8	✓	✓	47 W	N/A

For more information, visit www.intel.com/xeone3

- ¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. Go to: http://www.intel.com/products/processor_number/
- ² Up to 1.8x better performance on 3DMark® 11. Baseline configuration: Intel® Hermosa Beach 2 CRB platform with Intel® Xeon® processor E3-1286v3, 32GB memory (4x 8GB DDR3-1333 UDIMM), 64GB SATA SSD, Intel® Turbo Boost enabled, HT enabled, Red Hat Enterprise Linux® 6.3, Oracle® Java® Hotspot Java 1.7.0_17. 3DMark® Score 1524, Source: Internal Intel measurements as of April 2014.
Intel® Xeon® processor workstation platform (Intel® Server Board 51200RP) with one Intel® Xeon® processor E3-1285 v4 (quad-core, 3.5GHz, 6M cache) BIOS 51200RP.8
68.03.01.0002.041520151123, Intel® Hyper-Threading Technology best configuration, 32GB memory (4x8GB DDR3-1600 ECC UDIMM), Intel® Iris™ Pro graphics P6300 with driver 10.18.10.3980, Intel SSDSC2BB300G4, Microsoft Windows 8.1* 3DMark® Score 2881, Source: Intel internal testing as of June 2015.
- ³ Up to 4300 streams per rack, or 1.4x vs previous generation. Rack density based on the Supermicro® SuperServer 5038ML-H24TRF 3U chassis with 12 sleds. Each sled containing 2 Intel® Xeon® E3-1200 v3 or v4 processors for a total of 24 E3-1200 v3 or v4 processors per 3U chassis. Assuming 2U for top of rack switches, 13 3U chassis could fit in each rack, giving 24*13=312 sockets in a 42u rack. 312*10=3120 streams E3-1286L v3; 312*14=4368 streams on E3-1285L v4
- ⁴ Up to 1.4x transcoding performance with Intel® Xeon® E3-1285L v4 when compared with Intel® Xeon® E3-1286L v3 on Intel Media Server Studio 2015 R3 Essentials Edition. Number of real time threads transcoded simultaneously: 10 on E3-1286L v3, 14 on E3-1285L v4, using 1080p30 20Mbps streams. Baseline configuration: Intel Rainbow Pass SR1200V3RP platform with Intel(R) Xeon® E3-1285L v4 (65W, 4C, 3.4Ghz, Intel® Iris Pro Graphics P6300) or Intel® Xeon® Processor E3-1286L v3 (65W, 4C, 3.2Ghz, Intel® HD Graphics P4700), 32 GB (4x8GB DDR3-1600MHz UDIMM), 160GB 7200 SATA HOD, Turbo Boost Enabled, HT Enabled, Windows Server 2012 R2, Intel Media Server Studio 2015 R3 Essentials Edition, Multi Transcoding Sample Version 6.0.0.36, Intel graphics driver pGFX 10.18.14.4172, BIOS S1200RP.86B.03.01.002. Source: Intel internal measurements as of May 2015
- ⁵ Intel® Iris™ Pro Graphics P6300 requires the latest-version Intel® Graphics Driver, Intel C226 chipset, and Intel® Xeon® processor E3-1285 v4, Intel® Xeon® processor E3-1278L v4, or Intel® Xeon® processor E3-1265 v4 to enable data centre graphics application optimizations. To learn more about Intel Xeon processors for data center graphics, visit intel.com/datacentregraphics.
- ⁶ BGA package
- ⁷ HD P5700 graphics



INTEL® XEON® PROCESSOR E3-1200 V3 FAMILY

Intel® Xeon® Processor E3-1200 v3 Product Family

The Intel® Xeon® Processor E3-1200 v3 product family supports a range of business needs. Platforms based on the Intel Xeon processor E3-1200 v3 product family can be used as an entry server for small business applications or as an entry workstation for CAD and financial services. Low-power SKUs are uniquely suited to support scale-out workloads in Microserver platforms, and graphics-enabled SKUs support remote / virtual graphics capabilities and media transcode usages in the data center.



Intel® Xeon® Processor E3-1200 v3 Product Family for Server and Workstation Systems Featuring One LGA1150 Socket (Thermal Solution Included with Box SKUs)

PROCESSOR NAME ¹	PRODUCT CODE	CLOCK SPEED	SINGLECORE TURBO MAX. SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® GRAPHICS ENGINE	INTEL® HYPER-THREADING TECHNOLOGY ²	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
Intel® Xeon® processor E3-1281 v3	CM8064601575329 (tray only)	3.70 GHz	4.10 GHz	8 MB	1600 MHz	4/8		✓	✓	80 W	N/A
Intel® Xeon® processor E3-1276 v3	BX80646E31276V3 (box) CM8064601575216 (tray)	3.60 GHz	4 GHz	8 MB	1600 MHz	4/8	Intel HD graphics P4600	✓	✓	84 W	7 35858 27876 8
Intel® Xeon® processor E3-1271 v3	BX80646E31271V3 (box) CM8064601575330 (tray)	3.60 GHz	4 GHz	8 MB	1600 MHz	4/8		✓	✓	80 W	7 35858 27900 0
Intel® Xeon® processor E3-1246 v3	BX80646E31246V3 (box) CM8064601575205 (tray)	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4/8	Intel HD graphics P4600	✓	✓	84 W	7 35858 27882 9
Intel® Xeon® processor E3-1245 v3	BX80646E31245V3 (box) CM8064601466509 (tray)	3.40 GHz	3.80 GHz	8 MB	1600 MHz	4/8	Intel HD graphics P4600	✓	✓	84 W	7 35858 25940 8
Intel® Xeon® processor E3-1241 v3	BX80646E31241V3 (box) CM8064601575331 (tray)	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4/8		✓	✓	80 W	7 35858 27906 2
Intel® Xeon® processor E3-1231 v3	BX80646E31231V3 (box) CM8064601575332 (tray)	3.40 GHz	3.80 GHz	8 MB	1600 MHz	4/8		✓	✓	80 W	7 35858 27912 3
Intel® Xeon® processor E3-1230L v3	CM8064601467601 (tray only)	1.80 GHz	2.80 GHz	8 MB	1600 MHz	2/4		✓	✓	25 W	N/A
Intel® Xeon® processor E3-1226 v3	BX80646E31226V3 (box) CM8064601575206 (tray)	3.30 GHz	3.70 GHz	8 MB	1600 MHz	4/4	Intel HD graphics P4600		✓	84 W	7 35858 27894 2
Intel® Xeon® processor E3-1225 v3	BX80646E31225V3 (box) CM8064601466507 (tray)	3.20 GHz	3.60 GHz	8 MB	1600 MHz	4/4	Intel HD graphics P4600		✓	84 W	7 35858 25946 0
Intel® Xeon® processor E3-1220 v3	BX80646E31220V3 (box) CM8064601467204 (tray)	3.10 GHz	3.50 GHz	8 MB	1600 MHz	4/4			✓	80 W	7 35858 25976 7
Intel® Xeon® Processor E3-1220L v3	CM8064601481914 (tray only)	1.10 GHz	1.50 GHz	4 MB	1600 MHz	2/4		✓	✓	13 W	N/A





For more information, visit www.intel.com/xeon

- ¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. Go to: http://www.intel.com/products/processor_number/
- ² Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. Check with your system manufacturer or retailer or learn more at www.intel.com
- ³ Intel® QPI-Intel® QuickPath Interconnect; GT/s—Gigatransfers per second.
- ⁴ Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations, and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information, go to www.intel.com/performance
- ⁵ Claim based on calculated theoretical peak double precision performance capability for a single coprocessor. 16 DP FLOPS/clock/core * 61 cores * 1.238 GHz = 1.208 TeraFLOPS.
- ⁶ Results have been estimated based on internal Intel analysis and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance.
- ⁷ Intel® Xeon® Processor E5-2600 v4 product family (22C, 55M Cache) compared to Intel® Xeon® Processor E5-2600 v3 product family (18C, 45M Cache).
- ⁸ E5 v4 up to 47% vs. previous-generation E5 v3 performance based on binomialcpu v3.0_AVX2 financial services workload results as of 16 March 2016) comparing 1-Node, 2 x Intel® Xeon® Processor E5-2699 v3 on Grantley-EP (Wellsburg) with 128 GB Total Memory on Red Hat Enterprise Linux® 6.4 kernel 2.6.32-358, Options per second Score: 106025 vs. 2 x Intel® Xeon® Processor E5-2699 v4 on Grantley-EP (Wellsburg) with 128 GB Total Memory on Red Hat Enterprise Linux® 6.4 kernel 2.6.32-358, Options per second Score: 156141 Higher is better. Data Source: Request Number: 1871 E5 v4 up to 27% vs. previous-generation E5 v3 average performance based on key industry-standard benchmarks calculations submitted by OEMs as of 16 March 2016) comparing 2-socket Intel® Xeon® processor E5 v3 to v4 family. Key industry benchmarks include: SPECint*_rate_base2006, SPECint*_base 2006 (Speed), SPECfp*_rate_base 2006, SPECfp*_base2006 (Speed), SPECmpi*_base2007, SPECmpiM*_base2007, SPECompG*_base2012, SPECvirt_sc*2013, VMmark* 2.5 performance (matched pairs), TPC-E*, SPECjEnterprise*2010, Two-tier SAP SD* Windows*/Linux, 1-Node TPC-H* 1TB, TPCx-BB* and SPECjbb*2015 MultiJVM. See <http://www.intel.com/performance/datacenter> for full configuration details.

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/xeon

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INTEL® XEON® PROCESSOR D-1500 PRODUCT FAMILY

The Intel® Xeon® processor D family offers new options for infrastructure optimization, by bringing the performance and advanced intelligence of Intel® Xeon® processors into a dense, lower-power system-on-a-chip.

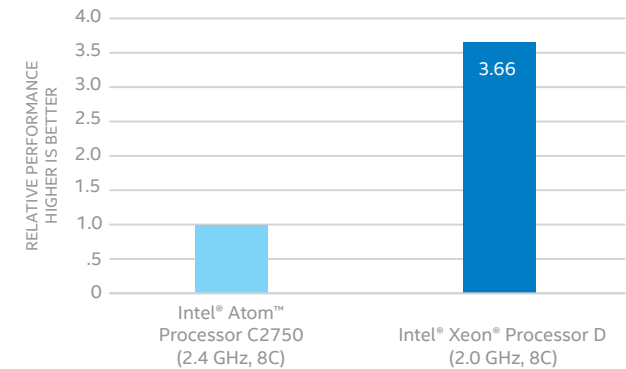
The Intel Xeon processor D product family is Intel's 3rd generation 64-bit SoC and the first based on Intel Xeon processor technology. It can be deployed for a variety of workloads including dynamic web serving, dedicated web hosting, warm storage, network routing, and more.



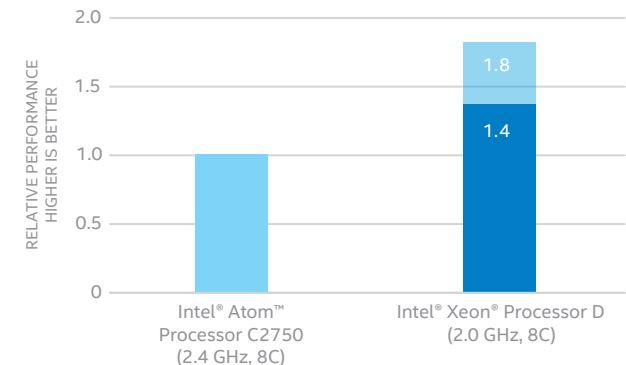
Intel® Xeon® Processor D-1500 Product Family

	INTEL® XEON® PROCESSOR D-1541	INTEL® XEON® PROCESSOR D-1521
Thermal Design Point	45W	45W
Frequency	2.1 GHz	2.4 GHz
Max Turbo Frequency	2.7 GHz	2.7 GHz
Cores	8	4
Threads	16	8
Memory Channels	2	2
DIMMS per Channel	2	2
DRAM Interface	ECC (DDR4), DDR3	ECC (DDR4), DDR3
Max. Memory Speed	2133 MT/s	2133 MT/s
Max. DRAM Capacity	128 GB	128 GB
Integrated I/O	24 PCIe 3.0* 8 PCIe 2.0* x4 USB 3.0 x4 USB 2.0 x6 SATA 3	24 PCIe 3.0* 8 PCIe 2.0* x4 USB 3.0 x4 USB 2.0 x6 SATA 3
Network Interface	2 x 1/2.5/10 GbE Intel Ethernet	2 x 1/2.5/10 GbE Intel Ethernet
Built-In Intel® Virtualization Technology	VT-x, VT-d, and Cache QoS	VT-x, VT-d, and Cache QoS
Cache Hierarchy	L1 (32K data, 32K instructions per core) L2 (256K per core) LLC (1.5 MB per core)	L1 (32K data, 32K instructions per core) L2 (256K per core) LLC (1.5 MB per core)

Performance Dynamic Web Serving



Performance per Watt Dynamic Web Serving





Intel® Xeon® Processor D-1500 Product Family

Intel® Xeon® Processor Intelligence in a Low-Power SoC	Up to 3.6x higher performance per node ^{1,3} versus Intel® Atom™ processor C2750-based solutions. Includes up to 8 cores, two integrated ports of 10 Gigabit Intel® Ethernet, plus support for up to 128 GB of memory. Also includes Intel® 64-bit software support ⁴ , L1 cache (32K data, 32K instructions per core), L2 cache (256K per core), LLC cache (1.5 MB per core), Intel® Turbo Boost Technology ⁴ , and Intel® Hyper-Threading Technology. ⁴
Industry-Leading 14 nm Process Technology	Enables dense, low power system designs with thermal design points of ~20W to 45W and system level performance per watt of up to 1.8x that of Intel Atom processor C2750-based solutions ^{2,3} .
Server-Class Reliability, Availability, and Serviceability (RAS)	Provides high system reliability and data integrity with support for error correction code (ECC) memory, single device data correction (SDDC), memory demand and patrol scrubbing, and much more.
Built-In Intel® Virtualization Technology	Delivers near-native compute and I/O performance in virtualized data centers, network infrastructure, and cloud computing, with advanced monitoring of cache and memory bandwidth for better service level and infrastructure management.
Hardware-Enhanced Security and Compliance	Intel Advanced Encryption Standard New Instructions (Intel AES-NI) provide integrated support for fast, low-overhead encryption and Intel® Trusted Execution Technology (Intel® TXT) provides platform verification (through authenticated boot) to enable strong security with reduced performance impact ⁵ .
Server-Class Manageability	Includes Intel® Node Manager Base for adaptive power management.
Intel® Platform Storage Extensions	Enables fast data movement and high availability through integrated support for non-transparent bridging (NTB), asynchronous DRAM self-refresh (ADR), and Intel® QuickData technology, which provides a direct memory access (DMA) engine within the SoC ⁶ .

For more information, visit www.intel.com/xeon

¹ Up to 3.6x better performance on Dynamic Web Serving Intel® Xeon Processor D-based reference platform with one Xeon Processor D (8C, 2.0GHz, 45W, ES2), Turbo Boost Enabled, Hyper-Threading enabled, 64GB memory (4x16GB DDR4-2133 RDIMM ECC), 2x10GBBase-T X552, 3x S3700 SATA SSD, Fedora* 20 (3.17.8-200.fc20.x86_64, Nginx* 1.4.4, Php-fpm* 15.4.14, memcached* 1.4.14, Simultaneous users=43844 Supermicro SuperServer* 5018A-TN4 with one Intel Atom Processor C2750 (8C, 2.4GHz,20W), Turbo Boost Enabled, 32GB memory (4x8GB DDR3-1600 SO-DIMM ECC), 1x10GBBase-T X520, 2x S3700 SATA SSD, Ubuntu* 14.10(3.16.0-23 generic), Nginx* 1.4.4, Php-fpm* 15.4.14, memcached* 1.4.14, Simultaneous users=12896.

² Up to 1.8x (estimated) better performance per watt on Dynamic Web Serving Intel® Xeon Processor D-based reference platform with one Xeon Processor D (8C, 2.0GHz, 45W, ES2), Turbo Boost Enabled, Hyper-Threading enabled, 64GB memory (4x16GB DDR4-2133 RDIMM ECC), 2x10GBBase-T X552, 3x S3700 SATA SSD, Fedora* 20 (3.17.8-200.fc20.x86_64, Nginx* 1.4.4, Php-fpm* 15.4.14, memcached* 1.4.14, Simultaneous users=43844, Estimated wall power based on microserver chassis, power=90W, Perf/W=487.15 users/W Supermicro SuperServer* 5018A-TN4 with one Intel Atom Processor C2750 (8C, 2.4GHz,20W), Turbo Boost Enabled, 32GB memory (4x8GB DDR3-1600 SO-DIMM ECC), 1x10GBBase-T X520, 2x S3700 SATA SSD, Ubuntu* 14.10 (3.16.0-23 generic), Nginx* 1.4.4, Php-fpm* 15.4.14, memcached* 1.4.14, Simultaneous users=12896. Maximum wall power =46W, Perf/W=280.3 users/W

³ Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

⁴ Intel technologies may require enabled hardware, specific software, or services activation. Check with your system manufacturer or retailer.

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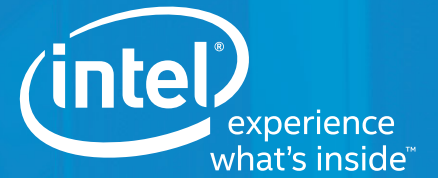
⁵ Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com

⁶ Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

For more information go to <http://www.intel.com/performance>

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INTEL[®] SERVER BOARDS

INTEL® SERVER BOARDS

High quality, unbranded server building blocks featuring Intel's most innovative technologies with Intel world-class validation, compatibility, certification, warranty and support. Reliable solutions made easy.



THE QUALITY YOU WANT WITH THE CONFIDENCE YOU NEED

Intel designs and builds to a high specification, delivering server products with maximum processing power, great flexibility, excellent manageability, and high reliability. Stringent design and manufacturing practices, rigorous validation and testing, and excellent warranty and technical support ensure you receive value that is difficult to find anywhere else.

Feature-rich boards featuring Intel® Xeon® E5 processor family

Intel® Server Board S2600WT family:

Spread-core design with maximum product flexibility for expansion

Intel® Server Board S2600KP family:

High memory performance in a density optimized form-factor

Intel® Server Board S2600CW family:

Flexible general purpose boards in an SSI EEB form-factor

Intel® Server Board S2600TP family:

Density Optimized boards with rich memory and I/O features

Single-socket board featuring bootable Intel® Xeon Phi™ processor family

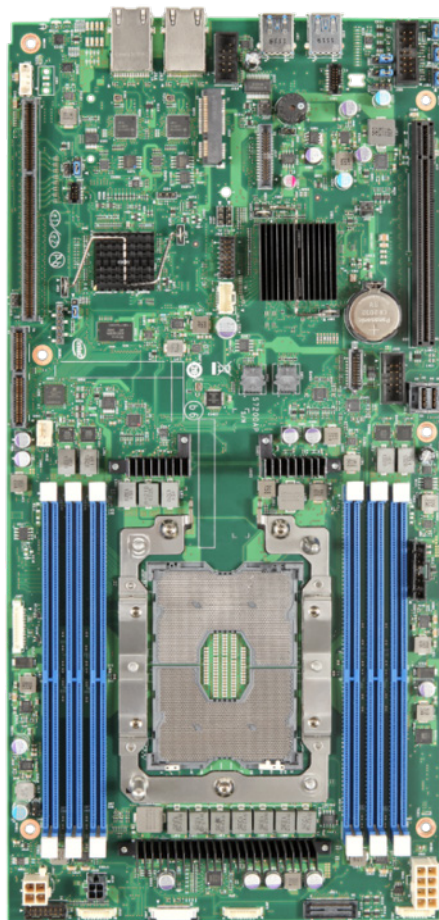
Intel® Server Board S7200AP family:

Purpose built to support parallelized workflows with easy serviceability and high availability.

Single-socket board featuring Intel® Xeon E3 processor family

Intel® Server Board S1200SP family:

Reliable, cost effective, easy to manage board in a microATX form factor.



Intel® Server Board S7200AP (Adams Pass)

Intel® Server Board S7200AP product family brings the performance of the Intel® Xeon Phi™ processor product family to the half-width board form factor for 2U four node rack chassis. Featuring six DIMMs per board, dual-port Intel® Omni-Path Fabric, an Intel® Remote Management Module and dual Intel® Ethernet Controllers i210 (Springville) this product family is specifically designed for high performance computing (HPC) environments.

Chassis	H2216XXLR2 or H2312XXLR2 Chassis with 2130W PSU
Processor	Intel® Xeon Phi™ processor (Bootable Knights Landing), up to 215W TDP support
Chipset	Intel® C-612 Chipset: Intel Wellsburg Platform Controller Hub (PCH) <ul style="list-style-type: none"> • 4 ports to bridge board • 4 ports to mini-SAS connector on motherboard • 1 port to mSATA connector on motherboard
Board Form Factor	6.8"W x 14.2"L
Memory	<ul style="list-style-type: none"> • 6 x DDR4 DIMMs, 1SPC, 6 x native channels/system • Supported speeds: 1866, 2133, 2400MT/s Registered/LRDIMM ECC
KNL Integrated PCI-E* Gen 3 I/O Configuration	<ul style="list-style-type: none"> • Riser 1: PCIe* Gen3 x 16 • Riser 2: PCIe Gen3 x 20 (x16 or x4)
Manageability	Pilot 3 BMC with optional advanced features via Intel® RMM4Lite module
Ethernet	2x Intel® Ethernet Controller i210 (Springville 1GbE)
External IO	(2) USB 3.0
Fabric support	<ul style="list-style-type: none"> • Dual-port Intel® Omni-Path Fabric with KNL-F/QSFP Carrier in Riser 1 • Intel® Omni-Path Low-profile PCIe Adapter

Key Features

- Highest performance Intel® Server Board supporting Intel Xeon Phi processor family with optional Intel Omni-Path Fabric support
- Board options for easier third party liquid cooling support
- Available as a board, compute module or fully integrated and validated compute block

Intel® Server Boards Supporting the Intel® Xeon® Processor E5-2600 v4 Family

RELIABLE SOLUTIONS MADE EASY

Get Intel® Server Products built on a foundation of high-quality technology with the fourth generation Intel® Xeon® processor E5-2600 v4 family of server solutions. The latest server products are designed to span multiple use-cases and customization requirements while offering performance, power, and cost flexibility to meet customers' requirements and growth needs now and in the future. To address customer security concerns and guard against counterfeiting and malware, select product families feature the Intel® Transparent Supply Chain which enables the ability to verify the authenticity of board components and firmware. Intel® Server Products ordered with the new Refresh order codes include the BIOS installed for the Intel® Xeon® Processor E5-2600 v4¹. Previous generation products will require an Intel® Xeon® processor E5-2600 v3 (Haswell) in order to update to an Intel® Xeon® processor E5-2600 v4 (Broadwell) production BIOS.



PRODUCT NAME	INTEL® COMPUTE MODULE HNS2600KP FAMILY	INTEL® COMPUTE MODULE HNS2600TP FAMILY
DESCRIPTION	A hot-pluggable, high-density compute module integrated with an Intel® Server Board S2600KP model (available with or without integrated FDR InfiniBand*), maximum memory bandwidth, and flexible configuration options for the Intel® Server Chassis H2000G family.	A hot-pluggable, high-density compute module integrated with an Intel® Server Board S2600TP model (available with or without integrated FDR InfiniBand*) for higher memory capability and flexible configuration options for the Intel® Server Chassis H2000G family.
TARGET MARKET	High performance computing (HPC) / big data	Hyper-converged infrastructure/ High performance computing (HPC) / big data / storage / cloud
ORDER CODE	HNS2600KPR: 1U node with S2600KPR HNS2600KPRF: 1U node with S2600KPRF, onboard FDR InfiniBand* (1 rear InfiniBand 56 Gb/s port) BBS2600KPR: Board BBS2600KPRF: Board with FDR InfiniBand (56 Gb/s) BBS2600KPTR: Board with TPM 1.2	HNS2600TPR: 1U node with S2600TPR HNS2600TPFR: 1U node with S2600TPFR, onboard FDR InfiniBand (1 rear InfiniBand 56 Gb/s port) HNS2600TP24R: 1U node for 24 x 2.5" drive chassis; dual 1G BaseT, dual 10G BaseT HNS2600TP24SR: 1U node for 24 x 2.5" drive chassis; dual 1G BaseT, dual 10G (SFP+) NEW! HNS2600TP24STR: 1U node for 24 x 2.5" drive chassis; dual 1G BaseT with TPM2.0 BBS2600TPR: Board BBS2600TPFR: Board with FDR InfiniBand (56 Gb/s)
FORM FACTOR	Custom (6.4" x 17.7")	Custom (6.8" x 18.9")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis H2000G family	Intel® Server Chassis H2000G family
PROCESSOR SUPPORT,¹ MAX TDP	2 Intel® Xeon® processors E5-2600 v4 or v3 product family Boards only: 160 W Compute Modules: 145 W	2 Intel® Xeon® processors E5-2600 v4 or v3 product family Boards only: 160 W Compute Modules: 145 W
CHIPSET	Intel® C612 Chipset	Intel® C612 Chipset
TOTAL PCI SLOTS	3 Riser slots	4 Riser slots
PCI SLOT TYPES	1 PCI Express* 3.0 x16, 2 PCI Express 3.0 x24 super slots or 2 PCI Express 3.0 x16, 1 PCI Express 3.0 x24 super slot	2 PCI Express* 3.0 x16, 2 PCI Express 3.0 x24 super slots or 3 PCI Express 3.0 x16, 1 PCI Express 3.0 x24 super slot
MEMORY CAPACITY	8 LR / R / DIMMs 1333 / 1600 / 1866 / 2133 / 2400 MHz ECC DDR42 NVDIMMs 2133MHz ² 1024 GB max per system	16 LR / R / DIMMs 1333 / 1600 / 1866 / 2133 / 2400 MHz ECC DDR42 NVDIMMs 2133MHz ² 2048 GB max per system
SATA PORTS	10-port SATA (6 Gb/s)	HNS2600TP24R/HNS2600TP24SR: 6-port 6 Gb/s SATA 10-port SATA (6 Gb/s)
SAS OPTIONS	12 Gb/s SAS via optional 12 GB SAS bridge board and Intel® RAID module / adapter	12 Gb/s SAS via optional 12 GB SAS bridge board and Intel® RAID module / adapter HNS2600TP24R/HNS2600TP24SR: 12 Gb/s SAS via integrated 12 GB SAS bridge board
INTEGRATED LAN	2 integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 1 dedicated integrated management port	2 integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 1 dedicated integrated management port
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology 4.0 (0, 1, 5, and 10) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, and 10 Up to SW Raid 5 with optional upgrade key	Intel® Rapid Storage Technology 4.0 (0, 1, 5, and 10) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, and 10 Up to SW Raid 5 with optional upgrade key
MODULE UPGRADES	Intel® I/O Expansion Module Intel® Remote Management Module 4 Single port 100Gb/s Intel® Omni-Path Fabric	Intel® I/O Expansion Module Intel® Remote Management Module 4 Single port 100Gb/s Intel® Omni-Path Fabric
INTEL® TRANSPARENT SUPPLY CHAIN	Statement of Conformance Platform Certificate	Statement of Conformance
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

¹ Intel always recommends updating the BIOS/BM/FRUSDR prior to server deployment ² Maximum memory speed supported depends on the processor used. ³ NVDIMM support refer to Intel® Server Configurator Tool (<https://serverconfigurator.intel.com>).



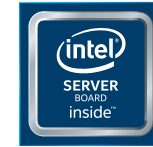
PRODUCT NAME	INTEL® SERVER BOARD S2600CW FAMILY	INTEL® SERVER BOARD S2600WT FAMILY
DESCRIPTION	A family of flexible general purpose server boards supporting two Intel® Xeon® processor E5-2600 v4 family up to 145 W and 16 DIMMs in a standard SSI EEB form factor. Board variations available for two 1 Gb or 10 Gb Ethernet ports, as well as options for an 8-port SAS controller.	A rack-optimized server board supporting two Intel® Xeon® processor E5-2600 v4 family up to 145 W, 24 DIMMs, and two 1 Gb or 10 Gb Ethernet port options available.
TARGET MARKET	Embedded / small- and medium-sized businesses / storage / cloud	Enterprise and medium business IT / big data / storage / cloud
ORDER CODE	DBS2600CW2R: Dual 1 Gb Ethernet ports DBS2600CWTR: Dual 10 Gb Ethernet ports DBS2600CW2SR: Dual 1 Gb Ethernet ports, 8-port LSI* 3008 SAS controller DBS2600CWTSR: Dual 10 Gb Ethernet ports, 8-port LSI 3008 SAS controller	S2600WT2R: 1 Gb Ethernet ports S2600WTTR: 10 Gb Ethernet ports S2600WTT5R: 10 Gb Ethernet ports with TPM2.0
FORM FACTOR	SSI EEB (12" x 13")	Custom (16.7" x 17")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis P4000G family	Intel® Server Chassis R1000WT family Intel® Server Chassis R2000WT family Intel® Server System R1000WT family Intel® Server System R2000WT family
PROCESSOR SUPPORT,¹ MAX TDP	2 Intel Xeon processors E5-2600 v4 or v3 product family 145 W Max	2 Intel Xeon processors E5-2600 v4 or v3 product family 145 W Max
CHIPSET	Intel® C612 Chipset	Intel® C612 Chipset
TOTAL PCI SLOTS	6	3 Riser slots 1 Intel® I/O Expansion Module Connector 1 Intel® RAID Module Connector
PCI SLOT TYPES	1 PCI Express* 3.0 x8, 4 PCI Express 3.0 x16, 1 PCI Express 2.0 x4 2 PCI Express 3.0 x8, 3 PCI Express 3.0 x16, 1 PCI Express 2.0 x4 (models with LSI* 3008)	2 PCI Express* 3.0 x24 riser super socket (supporting x8, x16, and PCI-X riser card slot options) 1 PCI Express 3.0 mixed x8, x4 slot riser socket (supporting x4, and x8 riser card slot options) 1 PCI Express 3.0 x8 Intel® I/O Expansion Module, 1 PCI Express 3.0 x8 Intel® RAID Module
MEMORY CAPACITY	16 R / LR DIMMs 1333/ 1600 / 1866 / 2133 / 2400 MHz ECC DDR4 ² NVDIMMs 2133MHz ³ 1 TB max using 64 GB DIMMs 2 TB max using 128 GB DIMMs	24 R / LR DIMMs 1333/ 1600 / 1866 / 2133 / 2400 MHz ECC DDR4 ² NVDIMMs 2133MHz ³ 1.50 TB max using 64 GB DIMMs
SATA PORTS	10-port SATA (6.0 Gb/s)	10-port SATA (6.0 Gb/s)
SAS OPTIONS	Models with LSI* 3008: 8 Integrated SAS ports, 12G SAS with battery-less hardware RAID	6 Gb/s or 12 Gb/s SAS via optional SAS module
INTEGRATED LAN	2 integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) or 2 integrated Dual Port Intel® Ethernet Controller X540 (10 GbE)	2 integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) or 2 integrated Dual Port Intel® Ethernet Controller X540 (10 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	PCH SATA 6G with Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, and 10 optional RAID 5 supported through the ESRT2 RAID 5 upgrade key Integrated RAID levels 0, 1, 1E, and 10; optional RAID level 5 upgrade available	Intel® Rapid Storage Technology ² 4.0 (SW RAID levels 0, 1, 5, and 10) Intel® Embedded Server RAID Technology 2 (SW RAID levels 0, 1, and 10; optional RAID level 5 upgrade available)
MODULE UPGRADES	Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Lite Trusted Platform Module	Intel® I/O Expansion Module Intel Integrated RAID Module (ROC or IOC) Intel Remote Management Module 4 Lite Trusted Platform Module
INTEL® TRANSPARENT SUPPLY CHAIN	N/A	Statement of Conformance Platform Certificate
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

² Maximum memory speed supported depends on the processor used. ³ NVDIMM support refer to Intel® Server Configurator Tool (<https://serverconfigurator.intel.com>).

Two Socket Intel® Server Boards Supporting the Second Generation Intel® Xeon® Processor E5-2600 v2 Family

EXPANDED PRODUCT LINEUP, AMAZING PERFORMANCE, FLEXIBILITY AND EFFICIENCY

Get performance, flexibility, and efficiency with Intel® Server Boards supporting the Intel® Xeon® Processor E5-2600 v2 family. This second generation product offers an expanded product lineup, delivering more options across all segments.



PRODUCT NAME INTEL® SERVER BOARD S2600GL / GZ

PRODUCT NAME INTEL® SERVER BOARD S2600CP

DESCRIPTION	The Intel® Server Board S2600GL / GZ, Intel's technology showcase board, features maximum memory capacity, rack-optimized performance, and extensive I/O flexibility, making it ideal for high-performance and cloud computing. (Extended life product.)	Small- to medium-sized businesses can benefit from the Intel® Server Board S2600CP storage capacity, mainstream performance, and I/O flexibility. (Extended life product.)
TARGET MARKET	Data center / cloud	Small- to medium-sized businesses
ORDER CODE	S2600GL4: 16 DIMMs S2600GZ4: 24 DIMMs	DBS2600CP2: Dual Port Ethernet Controller 1 GbE DBS2600CP4: Quad Port Ethernet Controller 1GbE
FORM FACTOR	Custom (16.5" x 16.5")	SSI EEB (12" x 13")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server System R1000GL / GZ family Intel Server System R2000GL / GZ family	Intel® Server System P4308CP4MHGC Intel® Server Chassis P4000S/M family
PROCESSOR SUPPORT¹	2 Intel® Xeon® processors E5-2600 v2 product family	2 Intel® Xeon® processors E5-2600 v2 product family
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	2	6
PCI SLOT TYPES	2 PCI Express* 3.0 x8 personality modules 2 PCI Express 3.0 x24 superslots (6 PCI Express 3.0 x8 or 2 PCI Express 3.0 x16, 2 PCI Express 3.0 x8)	1 PCI Express 3.0 x16 5 PCI Express 3.0 x8
MEMORY CAPACITY	16 or 24 x LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 or 768 GB max	16 x LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 GB max
SATA PORTS	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)	14-port SATA (12 3.0 Gb/s, 2 6.0 Gb/s)
SAS OPTIONS	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
INTEGRATED LAN	2 integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 or 2 integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10
MODULE UPGRADES	Intel® I/O Expansion Module Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module	Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available



PRODUCT NAME	INTEL® SERVER BOARD S2600CO	INTEL® SERVER BOARD S1600JP
DESCRIPTION	An ideal server building block for embedded or storage systems and small- to medium-sized businesses, the Intel® Server Board S2600CO has a standard form factor, rich I/O with flexible configurations, and a 5-year life cycle. (Extended life product.)	The Intel® Server Board S1600JP is a performance single-socket, half-width board, rich in I/O (40 Gen3 lanes) for a streamlined 1U rack mount server presentation. (Extended life product.)
TARGET MARKET	Embedded / storage / small- to medium-sized businesses	Embedded / storage / small- to medium-sized businesses
ORDER CODE	BBS2600CO4: 4 SAS ports DBS2600COE: Firewire* 1394b, 8 SAS ports	S1600JP2: Dual Port Ethernet Controller 1 GbE S1600JP4: Quad Port Ethernet Controller 1 GbE
FORM FACTOR	SSI EEB (12" x 13")	Custom (6.8" x 13.8")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis P4000M family	Intel® Server System R1000JP family
PROCESSOR SUPPORT¹	2 Intel® Xeon® processors E5-2600 v2 product family	1 Intel® Xeon® processor E5-2600 v2 / E5-1600 v2 product family
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	6	3
PCI SLOT TYPES	4 PCI Express 3.0 x16 1 PCI Express 3.0 x8 1 PCI Express 2.0 x4	2 PCI Express* 3.0 x16 1 PCI Express 3.0 x
MEMORY CAPACITY	16 LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 GB max	8 x LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 256 GB max
SATA PORTS	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)
SAS OPTIONS	4 or 8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	4 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
INTEGRATED LAN	2 integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 or 2 integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10
MODULE UPGRADES	Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module	Intel® I/O Expansion Module Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4
WARRANTY	3 year limited warranty, optional 2 year extended warranty available when combined with an Intel® Chassis	3 year limited warranty, optional 2 year extended warranty available

Single Socket Intel® Server Boards Supporting the Intel® Xeon® Processor E5-2400 v2 Family

INTEL® SERVER BOARDS AND SYSTEMS BASED ON THE INTEL® XEON® PROCESSOR E5-2400 V2 PRODUCT FAMILY FURTHER EXPAND INTEL'S SERVER LINEUP

Supporting pedestal systems with more options and more features, the family of E5-2400 server products deliver server-class performance at competitive price points.



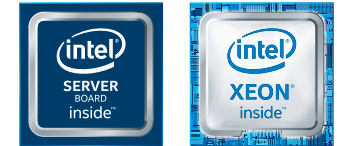
PRODUCT NAME INTEL® SERVER BOARD S1400FP

DESCRIPTION	The Intel® Server Board S1400FP is perfect for entry-level applications with 6 DIMMs, dual Intel® Ethernet Controllers, 24 PCI Express* Gen3 I/O lanes, and Intel® Server Management for affordable and effective performance. (Extended life product.)
TARGET MARKET	First server
ORDER CODE	DBS1400FP2: Dual Port Ethernet Controller 1 GbE DBS1400FP4: Quad Port Ethernet Controller 1 GbE
FORM FACTOR	SSI ATX (12" x 9.6")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis P4000S family
PROCESSOR SUPPORT¹	1 Intel® Xeon® processor E5-2400 v2 product family
CHIPSET	Intel® C600 Chipset
TOTAL PCI SLOTS	4+1
PCI SLOT TYPES	1 PCI Express 3.0 x8 3 PCI Express 3.0 x4 1 PCI Express 2.0 x4
MEMORY CAPACITY	6 x R / U / DIMMs 1066 / 1333 / 1600 MHz ECC DDR3 96 GB max
SATA PORTS	6-port SATA (4 3.0 Gb/s, 2 6.0 Gb/s)
SAS OPTIONS	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
INTEGRATED LAN	1 or 2 integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10
MODULE UPGRADES	Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available when combined with an Intel® Chassis

Intel® Server Boards Supporting the Intel® Xeon® Processor E3-1200 v5 Family

RELIABLE SOLUTIONS MADE EASY

Get Intel® Server Products built on a foundation of high-quality technology in the fifth generation Intel® Xeon® processor E3-1200 v5 family of server solutions. The latest server products are designed to span multiple use-cases and customization requirements while offering performance, reliability, security, and cost flexibility to meet customers' requirements and growth needs now and in the future.



DESCRIPTION	A flexible and feature-rich entry-level server board family in a uATX form factor is available as a rack-mount system or easily integrated into a general purpose Intel® Server Chassis or 3rd party chassis	
TARGET MARKET	Entry level server for small and medium businesses (SMBs), embedded, and storage and security appliance applications.	
ORDER CODE	DBS1200SPL: with SAS module support and eight SATA Ports DBS1200SPS NEW! DBS1200SPO: with Intel® I/O Expansion Module support	
FORM FACTOR	microATX (9.6" x 9.6")	
INTEL® SERVER CHASSIS	Intel® Server Chassis P40000SFDR, P4304XXSFCN, P4304XXSHCN Intel® Server System R1000SPO family	
PROCESSOR SUPPORT,¹ MAX TDP	Single Intel® Xeon® processors E3-1200 v5 product family	
CHIPSET	S1200SPL: Intel® C236 Chipset S1200SPS: Intel® C232 Chipset S1200SPO: Intel® C236 Chipset	
TOTAL PCI SLOTS	S1200SPL/S1200SPO: 3 S1200SPO: 1 Riser slot	
PCI SLOT TYPES	1 PCI Express® 3.0 x8 with x16 connection, 1 PCIe Gen3 x4 with x8 connection, 1 PCIe 3.0 x8 with x8 connection	
MEMORY CAPACITY	4 UDIMMs up to 2133 MHz ECC DDR4 64 GB max	
SATA PORTS	S1200SPL/S1200SPO: 8-port 6 Gb/s SATA S1200SPS: 6-port 6 Gb/s SATA	
SAS OPTIONS	S1200SPL/S1200SPO: Intel® Integrated RAID Module	
INTEGRATED LAN	Dual port integrated Intel® Ethernet Controller i210 (1 GbE)	
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0	
INTEL® RAID SUPPORT	Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, and 10 Intel® Rapid Storage Technology ² 4.0 (0, 1, 5, and 10)	
MODULE UPGRADES	S1200SPL only: Intel® Integrated RAID Module 22x42mm M.2 module Intel® Remote Management Module 4 LITE2 Trusted Platform Module 1.2	S1200SPO only: Intel® I/O Expansion Module Intel® Integrated RAID Module 22x42mm M.2 module Intel® Remote Management Module 4 Lite2 Trusted Platform Module 1.2
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	





Single Socket Intel® Server Boards Supporting the Intel® Xeon® Processor E3-1200 v4 Family

ENTRY-LEVEL SERVER BOARDS FOR EASY AND AFFORDABLE SOLUTIONS

Single-socket server boards now featuring the fourth generation Intel® Xeon® processor E3-1200 product family are a simple, yet powerful way for small businesses to get the server-level features they need, with Intel® technology and support. 1U rack and 4U pedestal systems available for easy integration. These products also support the second and third generation versions of the Intel® Xeon® processor E3-1200 product family.

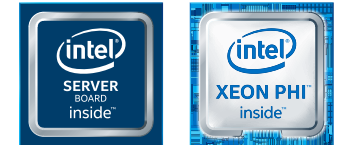


PRODUCT NAME	INTEL® ENTRY SERVER BOARD S1200V3RPL	INTEL® ENTRY SERVER BOARD S1200V3RPS	INTEL® ENTRY SERVER BOARD S1200V3RPO	INTEL® ENTRY SERVER BOARD S1200V3RPM
DESCRIPTION	The Intel® Entry Server Board S1200V3RPL is an entry server board for pedestal integration with optional management capabilities.	The Intel® Entry Server Board S1200V3RPS is a lowest-cost entry server board with basic server features.	The Intel® Entry Server Board S1200V3RPO is a rack-optimized entry server board with maximum I/O expansion and optional management.	The Intel® Entry Server Board S1200V3RPM is a rack-optimized entry server board with maximum I/O expansion, where application needs processor graphics computation.
TARGET MARKET	First server	First server	Small business / data center	Small business / data center
ORDER CODE	BBS1200V3RPL (10 pack) DBS1200V3RPL (5 pack)	BBS1200V3RPS (10 pack) DBS1200V3RPS (5 pack)	BBS1200V3RPO (10 pack) DBS1200V3RPO (5 pack)	BBS1200V3RPM (10 pack) DBS1200V3RPM (5 pack)
FORM FACTOR	microATX (9.6" x 9.6")	microATX (9.6" x 9.6")	microATX (9.6" x 9.6")	microATX (9.6" x 9.6")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis P4000SF family Intel® Server System P4308RPLSHDR	Intel® Server Chassis P4000SF family Intel® Server System R1304RPSSFBN	Intel® Server System R1304RPOSHBN Intel Server System R1208RPOSHOR Intel Server System R1208RPMISHOR	Intel® Server System R1304RPMISHOR
PROCESSOR SUPPORT ¹	1 Intel® Xeon® processor E3-1200 v4 product family	1 Intel® Xeon® processor E3-1200 v4 product family	1 Intel® Xeon® processor E3-1200 v4 product family	1 Intel® Xeon® processor E3-1200 v4 product family
CHIPSET	Intel® C226 Chipset	Intel® C222 Chipset	Intel® C224 Chipset	Intel® C226 Chipset
TOTAL PCI SLOTS	4+1	4	1+1	1+1
PCI SLOT TYPES	1 x PCI Express* 3.0 x8 2 x PCI Express 2.0 x4 1 x PCI Express 2.0 x1 1 x internal mezzanine connector x8	1 x PCI Express* 3.0 x8 2 x PCI Express 2.0 x4 1 x PCI Express 2.0 x1	1 x PCI Express* 3.0 x8 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4	1 x PCI Express* 3.0 x8 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4
MEMORY CAPACITY	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max
SATA PORTS	6-port SATA (6 x 6.0 Gb/s)	6-port SATA (2 x 6.0 Gb/s)	6-port SATA (4 x 6.0 Gb/s)	6-port SATA (6 x 6.0 Gb/s)
SAS OPTIONS	Optional via mezzanine connector	N/A	Optional via mezzanine connector	Optional via mezzanine connector
INTEGRATED LAN	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10	Intel® Rapid Storage Technology ² (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, and 10
MODULE UPGRADES	Intel® Storage I/O Module Intel® Remote Management Module 4 Intel Remote Management Module 4 Lite Trusted Platform Module	Trusted Platform Module	Intel® I/O Expansion Module Intel® Storage I/O Module Intel® Remote Management Module 4 Intel Remote Management Module 4 Lite Trusted Platform Module	Intel® I/O Expansion Module Intel® Storage I/O Module Intel® Remote Management Module 4 Intel Remote Management Module 4 Lite Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

Intel® Server Boards Supporting the Intel® Xeon Phi™ Processor (Knights Landing)

RELIABLE SOLUTIONS MADE EASY

Get Intel® Server Products built on a foundation of high-quality technology with the Intel® Xeon® Phi™ processor family of server solutions for customers. The latest server products are designed to span multiple use-cases and customization requirements while offering performance, power, and cost flexibility to meet customers' requirements and growth needs now and in the future. For a more secure supply chain, select product families now support the Intel® Transparent Supply Chain to assure customers their products come with a level of accountability and traceability unprecedented in the industry.



PRODUCT NAME	INTEL® COMPUTE MODULE HNS7200AP FAMILY (Adams Pass)
DESCRIPTION	A hot-pluggable, efficient, high-density compute module integrated with the Intel® Server Board S72000AP and optimized memory performance. Customizable as a 2U, four node system with serviceability and high availability, hot-swappable compute modules, 2.5" or 3.5" drive bays and redundant power supplies.
TARGET MARKET	High performance computing (HPC)
ORDER CODE	HNS7200AP: 1U node with S7200AP HNS7200APL: 1U node with S7200APL (Liquid cooling-friendly) BBS7200AP: Board (1G LOM) BBS7200APL: Board (Liquid cooling-friendly)
FORM FACTOR	Custom (6.8" x 14.2")
INTEL® SERVER CHASSIS	Intel® Server Chassis H2216XXLR2 Intel® Server Chassis H2312XXLR2
PROCESSOR SUPPORT,¹ MAX TDP	Intel® Xeon Phi™ processor (Knights Landing) 215W
CHIPSET	Intel® C612 Chipset
TOTAL PCI SLOTS	2 Riser slots
PCI SLOT TYPES	PCI Express* 3.0 x16 PCI Express 3.0 x20 (x16 or x4)
MEMORY CAPACITY	6 LR / R/ UDIMMs 1866 / 2133 / 2400 MHz ECC DDR4 192 GB max per system
SATA PORTS	Integrated 10-port SATA (6 Gb/s)
SAS OPTIONS	12 Gb/s SAS via optional PCIe* card
INTEGRATED LAN	Dual Intel® Ethernet Controller i210 (1 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, and 10
MODULE UPGRADES	Intel® Remote Management Module 4Lite Intel® Omni-Path Port Upgrade Kit (Two Port) Intel® Omni-Path low profile PCIe* adapter
INTEL® TRANSPARENT SUPPLY CHAIN	Statement of Conformance Platform Certificate
WARRANTY	3 year limited warranty, optional 2 year extended warranty available



For more information, visit www.intel.com/go/serverboards or ark.intel.com

¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details. Refer to <http://support.intel.com/support/motherboards/server> for up-to-date details on processors supported by each server board.

² Requires a 4th generation Intel® Core™ processor, enabled chipset, and Intel® Rapid Storage Technology (Intel® RST) software.

³ On interposer (need accessory kit AXXRMM4IOM or AXXRMM4IOMW).

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com.

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All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more information go to <http://www.intel.com/performance>.

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INTEL® SERVER SYSTEMS



INTEL® SERVER SYSTEMS

Based on Intel's most innovative technologies with Intel world-class validation, compatibility, certification, warranty and support. Reliable solutions made easy.

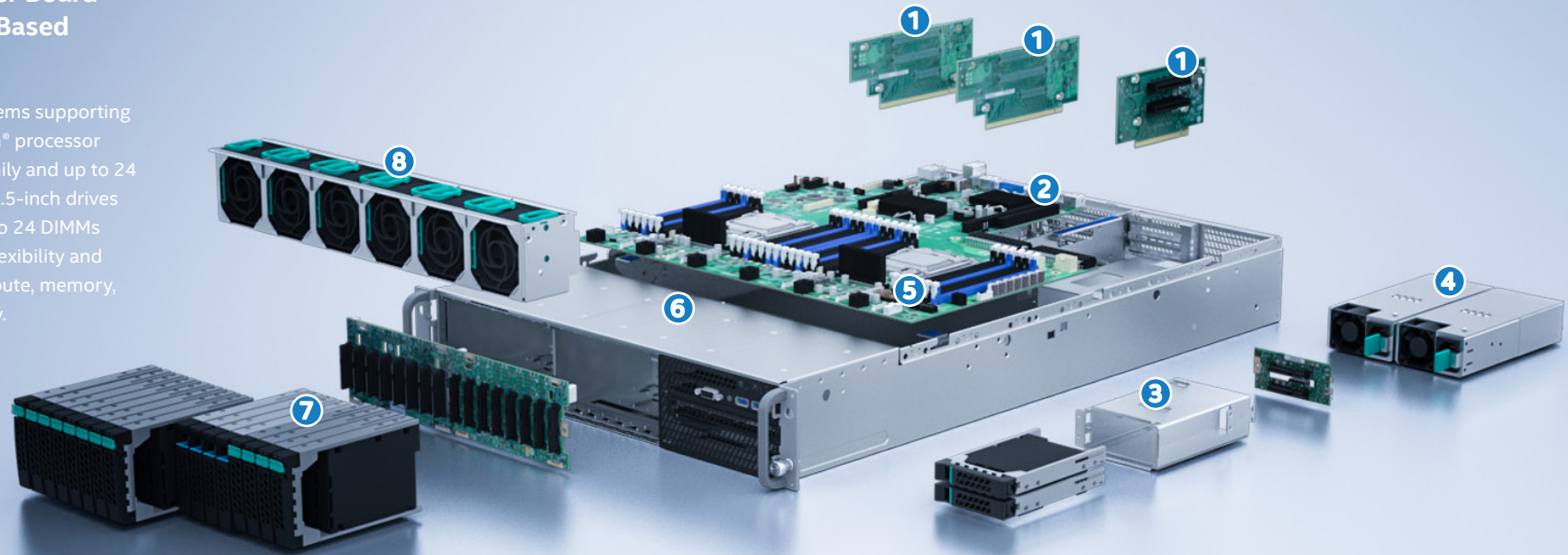
FEATURE-RICH INTEL® SERVER SYSTEMS FOR PERFORMANCE, RELIABILITY AND SECURITY

Customers want data center products designed for outstanding performance and reliability that will address their unique needs. With Intel® Server Systems featuring the latest Intel® Xeon® processor families you can count on trusted performance, quality and reliability to help solve the most complex business challenges.

INTEL® SERVER BOARD S2600WT-BASED SYSTEMS

Intel® Server Board S2600WT-Based Systems

1U and 2U systems supporting dual Intel® Xeon® processor e5-2600 v4 family and up to 24 2.5-inch or 12 3.5-inch drives supporting up to 24 DIMMs for expansion flexibility and maximum compute, memory, and I/O capacity.



- | | | | |
|--|--|--|--|
| 1 PCI Express* x8 and x4 supported. PCI Express x16 Expansion options available
Support PCIe* cards up to: 4 x full-height; full-length; 2 x full-height, half-length; 2 x low profile | 2 Integrated dual 1 GbE or dual 10 GbE Ethernet port options | 3 Optional 2 x 2.5" Hot-swap rear drive bay | 4 750 W AC redundant-capable power supply (80 PLUS* Platinum efficiency), 750 W DC redundant-capable power supply (80 PLUS Gold efficiency), or 1100 W AC redundant-capable power supply (80 PLUS Platinum efficiency), second power supply sold separately |
| 5 Intel Server Board Options: Intel® Server Board S2600WTTR; Intel® Server Board S2600WTTR | 6 Storage Combinations include: 8,16 & 24 x 2.5" Drives or 8 & 12 x 3.5" drives | 7 Optional NVMe* enabled hot-swap drive cage kit supporting up to 4x PCIe* NVMe* SSDs | 8 Optional Redundant, hot-swap and non-redundant, or fixed fan configurations |

Intel® Server Systems Supporting the Intel® Xeon® Processor E5-2600 v4 Family

INTEL® SERVER SYSTEMS R1000WT AND R2000WT BASED ON THE INTEL® SERVER BOARD S2600WT FAMILY — RELIABLE SOLUTIONS MADE EASY

Supporting 1U and 2U rack systems for expansion flexibility and maximum compute, memory, and I/O capacity to address customer security concerns and guard against counterfeiting and malware, select product families feature the Intel® Transparent Supply Chain which enables the ability to verify the authenticity of board components and firmware. Get the latest Intel® Server Products built on a foundation of high-quality technology in the next-generation Intel® Xeon® processor E5-2600 v4 family of server solutions. The latest Intel Server Products are designed to span multiple use-cases and customization requirements while offering performance, reliability, and security to meet customers' requirements and growth needs now and in the future.



DESCRIPTION	Manage highly demanding application workloads with 1U and 2U rack systems based on the premier Intel® Server Board W2600WT family featuring power-efficient spread core design, incredible 24 DDR4 DIMMS, and support for dual Intel® Xeon® processors E5-2600 v4.
TARGET MARKET	Enterprise and medium business IT / big data / storage / cloud
SERVER BOARD INCLUDED	S2600WT2R: 1 Gb Ethernet S2600WTTR: 10 Gb Ethernet
PROCESSOR SUPPORT,¹ MAX TDP	2 x Intel Xeon processors E5-2600 v4 product family NOTE: Max CPU TDP supported 145 W with configuration limitations, see Technical Product Specifications
TOTAL PCI SLOTS	3 Riser slots 1 Intel® I/O Module Connector 1 Intel® RAID Module Connector
PCI SLOT TYPES	1U: 2 x PCI Express* 3.0 x16 (FHHL), 1 x PCI Express 3.0 x8 Intel® I/O Expansion Module, 1 x PCI Express 3.0 x8 Intel® Integrated RAID Module 2U: 3 Riser Options: Total of up to 6 PCI Express 3.0 x8 or 2 PCI Express 3.0 x16, 2 PCI Express 3.0 x8, 1 x PCI Express 3.0 x8 Intel I/O Expansion Module, 1 x PCI Express 3.0 x8 Intel Integrated RAID Module Option 1) 3 x PCI Express 3.0 x8 (2 FHFL, 1 FHHL) Option 2) 1 x PCI Express 3.0 x16 FHFL, 1 x PCI Express 3.0 x8 FHHL Option 3) 2 PCI-X 133 MHz FHFL, 1 x PCI Express 3.0 x8 FHHL Additional: 1 x PCI Express 3.0 x8 LP, 1 x PCI Express 2.0 x4 LP via 3rd riser
MEMORY CAPACITY	24 LR / R / DIMMs 1333 / 1600 / 1866 / 2133 / 2400 MHz ECC DDR4 ¹ NVDIMMs 2133MHz ² 1.50 TB max using 64 GB DIMMS
MODULE UPGRADES	Intel® I/O Expansion Module Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Lite Trusted Platform Module
INTEL® TRANSPARENT SUPPLY CHAIN	Statement of Conformance Platform Certificate
WARRANTY	3 year limited warranty, optional 2 year extended warranty available



For the latest product SKUs and specifications, visit ark.intel.com

¹ Maximum memory speed supported depends on the processor used.

² NVDIMM support refer to Intel® Server Configurator Tool (<https://serverconfigurator.intel.com>).

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Intel® Server Systems R1000WT & R2000WT Based on the Intel® Server Board S2600WT Family

1U RACK SYSTEMS

Continued from previous page

Dimensions (H x W x D)	1.72" x 17.25" x 28"
System Cooling	Redundant cooling fans
Power Supply	750 W AC Redundant PSU (Platinum Efficiency) Optional 750 W DC 48 V Redundant PSU (Gold Efficiency) NOTE: Second power supply sold separately
Thermal Solution	Included
PCI Riser Slots	2 x PCI Express* 3.0 x16 (FHHL) 1 x PCI Express 3.0 x8 Intel® I/O Expansion Module 1 x PCI Express 3.0 x8 Intel® Integrated RAID Module
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1208WT2GSR	Intel® Server Board S2600WT2R 8 x 2.5" hot-swap HDD, optional support for 1 x 2.5" fixed internal drive 750 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)
R1208WTTGSR	Intel® Server Board S2600WTTR 8 x 2.5" hot-swap HDD, optional support for 1 x 2.5" fixed internal drive 750 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE)
R1304WT2GSR	Intel® Server Board S2600WT2R 4 x 3.5" hot-swap HDD, optional support for 1 x 2.5" fixed internal drive 750 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)

SPECIFIC SKUs

R1304WTTGSR	Intel® Server Board S2600WTTR 4 x 3.5" hot-swap HDD, optional support for 1 x 2.5" fixed internal drive 750 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE)
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Product does not include memory, processors, or hard drives. For compatibility information please refer to the configuration guide at www.intel.com/support

Intel® Server Systems R1000WT & R2000WT Based on the Intel® Server Board S2600WT Family

2U RACK SYSTEMS

Continued from previous page

Dimensions (H x W x D)	3.44" x 17.25" x 28"
System Cooling	Redundant and hot-swap cooling fans
Power Supply	750 W AC redundant-capable PSU (Platinum Efficiency) 750 W DC -48V redundant-capable power supply (Gold Efficiency) 1100 W AC redundant-capable PSU (Platinum Efficiency) NOTE: Second power supply sold separately
Thermal Solution	Included
PCI Riser Slots	3 Riser Options: Total of up to 6 PCI Express* 3.0 x8 or 2 PCI Express 3.0 x16, 2 PCI Express 3.0 x8, 1 x PCI Express 3.0 x8 Intel® I/O Expansion Module, 1 x PCI Express 3.0 x8 Intel® Integrated RAID Module Option 1) 3 x PCI Express 3.0 x8 (2 FHFL, 1 FHHL) Option 2) 1 x PCI Express 3.0 x16 FHFL, 1 x PCI Express 3.0 x8 FHHL Option 3) 2 PCI-X 133 MHz FHFL, 1 x PCI Express 3.0 x8 FHHL Additional: 1 x PCI Express 3.0 x8 LP, 1 x PCI Express 2.0 x4 LP via 3rd riser
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R2208WT2YSR	Intel® Server Board S2600WT2R 8 x 2.5" hot-swap HDD, optional 2 x 2.5" SATA rear hot-swap drives, 2 x 2.5" fixed internal drives 1100 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 6 PCI Express* 3.0 x8 (4 FHFL, 2 FHHL), 1 riser PCI Express 3.0 x8 LP, PCIe 2.0 x4 LP
R2208WTTYC1R	Intel® Server Board S2600WTTR 8 x 2.5" hot-swap HDD, optional 2 x 2.5" SATA rear hot-swap drives, 2 x 2.5" fixed internal drives 2 x 1100 W AC redundant-capable PSU Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 2 PCI Express* 3.0 x16, 2 PCI Express 3.0 x8, 1 PCI Express 3.0 x8 LP, PCIe 2.0 x4 LP

SPECIFIC SKUs

R2208WTTYSR	Intel® Server Board S2600WTTR 8 x 2.5" hot-swap HDD, optional 2 x 2.5" SATA rear hot-swap drives, 2 x 2.5" fixed internal drives 1100 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 6 PCI Express* 3.0 x8 (4 FHFL, 2 FHHL), 1 riser PCI Express 3.0 x8 LP, PCIe 2.0 x4 LP
R2224WTTYSR	Intel® Server Board S2600WTTR 24 x 2.5" hot-swap HDD, optional 2 x 2.5" SATA rear hot-swap drives, 2 x 2.5" fixed internal drives 1100 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 6 PCI Express* 3.0 x8 (4 FHFL, 2 FHHL)

Continued on next page

Intel® Server Systems R1000WT & R2000WT Based on the Intel® Server Board S2600WT Family

SPECIFIC SKUs

Continued from previous page

R2308WTTYSR	<p>Intel® Server Board S2600WTTR 8 x 3.5" hot-swap HDD, optional 2 x 2.5" SATA rear hot-swap drives, 2 x 2.5" fixed internal drives 1100 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 6 PCI Express* 3.0 x8 (4 FHFL, 2 FHHL) 1 riser PCI Express 3.0 x8 LP, PCIe 2.0 x4 LP</p>
R2312WTTYSR	<p>Intel® Server Board S2600WTTR 12 x 3.5" hot-swap HDD, optional 2 x 2.5" SATA rear hot-swap drives, 2 x 2.5" fixed internal drives 1100 W AC redundant-capable PSU; second PSU sold separately Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 6 PCI Express* 3.0 x8 (4 FHFL, 2 FHHL)</p>

Product does not include memory, processors, or hard drives. For compatibility information please refer to the configuration guide at www.intel.com/support

¹ Maximum memory speed supported depends on the processor used.

Intel® Server Boards S1200SP–Based Systems Supporting the Intel® Xeon® Processor E3-1200 v5 Family

RELIABLE, COST EFFECTIVE AND EASY TO MANAGE

Get Intel® Server Products built on a foundation of high-quality technology in the fifth generation Intel® Xeon® processor E3-1200 v5 family -based server system. The Intel® Server System R1000SP Family has the processing power to deliver reliability, durability and performance along with server management features and options for increased storage, functionality or faster networking speed. Intel® Server Products are backed by Intel's design excellence and manufacturing expertise to deliver processing power with high levels of flexibility, manageability and reliability.



DESCRIPTION	Robust and cost effective server s that can scale as customers grow. The Intel Server System R1000SP Family offers systems that scale via SATA and PCIe* expansion options, server management and storage flexibility at budget friendly prices.
TARGET MARKET	Small and medium businesses, embedded, storage or security appliances and web hosting rack installations
SERVER BOARD INCLUDED	NEW! S1200SPO: Rack optimized to support Intel® I/O Expansion Module and storage modules
PROCESSOR SUPPORT¹	1 x Intel® Xeon® processor E3-1200 v5 product family
TOTAL PCI SLOTS	1
PCI SLOT TYPES	1 PCIe* Gen3 x8 with x16 connection
MEMORY CAPACITY	4 x DDR4 UDIMMs up to 2133 ECC 64 GB max
MODULE UPGRADES	Intel® I/O Expansion Module Intel® Integrated RAID Module Intel® Remote Management Module 4 LITE2 Trusted Platform Module 1.2

1U RACK SYSTEMS

Dimensions (H x W x D)	1.7" x 17.26" x 23.84"
System Cooling	Fixed cooling fans
Power Supply	450 W Redundant (Gold Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUs

R1208SPOSHOR	8 x 2.5" hot-swap HDD Intel® Server Board S1200SPO 2 x 450 W hot-swap Redundant PSU
R1304SPOSHBN	4 x 3.5" hot-swap HDD Intel® Server Board S1200SPO 1 x 350 W fixed PSU
R1304SPOSHOR	4 x 3.5" hot-swap HDD Intel® Server Board S1200SPO 2 x 450 W hot-swap Redundant PSU

Intel® Server Boards Supporting the Intel® Xeon® Processor E5-2600 v2 Family

INTEL® SERVER SYSTEMS BASED ON THE INTEL® XEON® PROCESSOR E5-2600 V2 PRODUCT FAMILY— INTEL'S EXPANDED SERVER LINEUP

Supporting a wide range of 1U, 2U, and pedestal systems with more options and more features, the family of E5-2600 server products deliver more options across all product segments.

Intel® Server Systems R1000GZ and R2000GZ Based on the Intel® S2600GL / GZ Server Boards

DESCRIPTION	Rack-optimized Server Systems deliver exceptional memory capacity, performance, I/O capacity, and flexibility in an expansive family of 1U and 2U systems for the most demanding enterprise data center, cloud, or HPC environments. (Extended life product)
TARGET MARKET	Data center / cloud
SUPPORTED COMPUTE MODULES <small>(Sold separately, chassis supports up to 4 total)</small>	S2600GL4: 16 DIMM and 4 x 1 Gb Ethernet ports S2600GZ4: 24 DIMM and 4 x 1 Gb Ethernet ports
PROCESSOR SUPPORT¹	2 x Intel® Xeon® processors E5-2600 v2 product family
TOTAL PCI SLOTS	2
PCI SLOT TYPES	2 x PCI Express* 3.0 x24 Riser Slots
MEMORY CAPACITY	16 or 24 x LR / U / RDIMMs up to 1866 MT/s, ECC DDR3 512 or 768 GB max
MODULE UPGRADES	Intel® I/O Expansion Module Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module



1U RACK SYSTEMS

Dimensions (H x W x D)	1.75" x 16.93" x 27.95"
System Cooling	Redundant cooling fans
Power Supply	460 W AC Redundant PSU (Gold Efficiency) 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
PCI Riser Slots	1 x PCI Express* 3.0 x16 (x16 mechanical)
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1208GZ4GC	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel® Remote Management Module 4
R1304GZ4GC	4 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Remote Management Module 4

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Intel® Server Systems R1000GZ and R2000GZ Based on the Intel® S2600GL / GZ Server Boards

2U RACK SYSTEMS

Continued from previous page

Dimensions (H x W x D)	3.44" x 16.93" x 27.95"
System Cooling	Redundant cooling fans
Power Supply	750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
PCI Riser Slots	2 x PCI Express* 3.0 x8 (x16 mechanical), 1 x8 (x8 mechanical) 1 x PCI Express 3.0 x16 (x16 mechanical), 1 x8 (x8 mechanical) 2 x PCIx 133 MHz, 1 PCI Express x8 (x8 mechanical)
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R2208GZ4GC	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel® Remote Management Module 4
R2224GZ4GC4	24 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Remote Management Module 4

SPECIFIC SKUs

R2308GZ4GC	8 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel® Remote Management Module 4
R2312GZ4GC4	12 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Remote Management Module 4

Intel® Server Systems P4000CP Based on the Intel® Server Board S2600CP

DESCRIPTION	Integrated system with a variety of storage and power supply options for powerful performance and flexible feature advantages specific to the small- and medium-sized business and storage segments. (Extended life product.)
TARGET MARKET	Small- to medium-sized businesses
SERVER BOARD INCLUDED	S2600CP4: Quad 1 GbE Ethernet Controllers
PROCESSOR SUPPORT¹	2 x Intel® Xeon® processors E5-2600 v2 product family
TOTAL PCI SLOTS	6
PCI SLOT TYPES	1 x PCI Express* 3.0 x16 5 x PCI Express 3.0 x8
MEMORY CAPACITY	16 x LR / U / RDIMMs up to 1866 MT/s, ECC DDR3 512 GB max
MODULE UPGRADES	Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module



4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 24.9"
System Cooling	Non-redundant or redundant cooling fans
Power Supply	550 W AC Fixed PSU (Gold Efficiency) 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Intel® Integrated RAID Module RMS25PB080 provides 6 Gb/s to enable 8 SAS / SATA drives Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

P4308CP4MHGC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Redundant cooling fans Software RAID Key RKSATA8
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Intel® Server Systems R1000JP Based on the Intel® Server Board S1600JP

DESCRIPTION	Systems featuring a performance, single-socket, half-width board, rich in I/O (40 Gen3 lanes) for a streamlined 1U rack mount server presentation. (Extended life product.)
TARGET MARKET	Embedded / storage / small- to medium-sized businesses
SERVER BOARD INCLUDED	S1600JP4: Integrated Quad 1 GbE Ethernet Controllers
PROCESSOR SUPPORT¹	1 x Intel® Xeon® processor E5-2600 v2 product family or Intel Xeon processor E5-1600 v2 product family
TOTAL PCI SLOTS	3
PCI SLOT TYPES	2 x PCI Express* 3.0 x16 1 x PCI Express 3.0 x8
MEMORY CAPACITY	8 x LR / U / RDIMMs up to 1866 MT/s, ECC DDR3 256 GB max
MODULE UPGRADES	Intel® I/O Expansion Module Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4



1U RACK SYSTEMS

Dimensions (H x W x D)	1.75" x 17.2" x 24.75"
System Cooling	Redundant cooling fans
Power Supply	450 W DC Redundant PSU 450 W AC Redundant PSU (Gold Efficiency) 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1208JP40C	8 x 2.5" hot-swap HDD 2 x 450 W AC Redundant PSU
R1304JP40C	4 x 3.5" hot-swap HDD 2 x 450 W AC Redundant PSU
R1304JP4GS	4 x 3.5" hot-swap HDD 750 W AC Redundant PSU

Intel® Server Systems R2000LH2 / LT2 Based on the Intel® Server Board S4600LH

DESCRIPTION	The uncompromising performance and high reliability server of choice for demanding applications, featuring support for four Intel® Xeon® processors E5-4600 and massive memory capacity of 1.5 TB. (Extended life product)
TARGET MARKET	Enterprise / HPC
SERVER BOARD INCLUDED	S4600LH2: Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)
PROCESSOR SUPPORT¹	4 x Intel Xeon processors E5-4600 v2 product family
TOTAL PCI SLOTS	6+2
PCI SLOT TYPES	6 x PCI Express* 3.0 x16 2 x PCI Express 3.0 x8 Intel® I/O Expansion Module
MEMORY CAPACITY	48 x LR / U / DIMMs up to 1866 MT/s, ECC DDR3 1500 GB max
MODULE UPGRADES	Intel I/O Expansion Module: Ethernet and InfiniBand* Intel® Integrated RAID Module (ROC or IOC) (in PCI Express FF) Intel® Remote Management Module 4 (included) Trusted Platform Module
ADDITIONAL BOARD OPTIONS	eUSB SSD, SATA DOM, and mSATA support (for internal keys and boot)



2U RACK SYSTEMS

Dimensions (H x W x D)	3.43" x 17.24" x 28"
System Cooling	11 x high-speed hot-swap redundant 40mm dual rotor fans
Power Supply	1600 W AC Common Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Intel® Remote Management Module 4 Optional optical disk drive Optional Local Control Panel
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R2304LH2HKC	4 x 3.5" hot-swap HDD Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 2 x 1600 W AC Common Redundant PSU Intel® Remote Management Module 4
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Intel® Server Systems R1000SP Based on the Intel® Server Board S1400SP

DESCRIPTION	Built for entry-level affordability, this single-socket rack system provides real server performance at a low cost, making it an ideal embedded, data center, and storage solution building block. (Extended life product)
TARGET MARKET	Embedded
SERVER BOARD INCLUDED	S1400SP4: Integrated Quad 1 GbE Ethernet Controllers
PROCESSOR SUPPORT¹	1 x Intel® Xeon® processor E5-2400 v2 product family
TOTAL PCI SLOTS	1+1+1
PCI SLOT TYPES	1 x PCI Express* 3.0 x8 1 x PCI Express 3.0 x4 Intel® I/O Expansion Module 1 x PCI Express 3.0 x8 Intel I/O Expansion Module
MEMORY CAPACITY	6 x R / U / DIMMs 1066 / 1333 / 1600 MHz ECC DDR3 96 GB max
MODULE UPGRADES	Intel I/O Expansion Module Intel® Integrated RAID Module (ROC or IOC) Intel® Remote Management Module 4 Trusted Platform Module



1U RACK SYSTEMS

Dimensions (H x W x D)	1.7" x 17.2" x 21.8"
System Cooling	Non-redundant cooling fans
Power Supply	350 W AC Fixed PSU (Silver Efficiency), 450 W AC Redundant PSU (Gold Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software Integrated BMC with IPMI 2.0 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1304SP4SHOC	4 x 3.5" hot-swap HDD Intel® S1400SP4 Server Board with Integrated Quad 1 GbE Ethernet Controllers 2 x 450 W AC Redundant PSU
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Intel® Server Systems R1000RP and P4000RP Based on the Intel® Server Board S1200RP

DESCRIPTION	Entry Server systems with management options expand deployment opportunities with low price point and basic server features.
TARGET MARKET	First server
SERVER BOARD INCLUDED	S1200RPS: Lowest cost with basic server features S1200RPL: Pedestal solution with optional management S1200RPO: Rack optimized to support IOM and Storage Modules S1200RPM: Can support processors with GT2 graphics
PROCESSOR SUPPORT¹	1 x Intel® Xeon® processor E3-1200 v4 product family
TOTAL PCI SLOTS	4
PCI SLOT TYPES	S1200RPS: 1 x PCI Express* 3.0 x8, 2 x PCI Express 2.0 x4, 1 x PCI Express 2.0 x1 S1200RPL: 1 x PCI Express 3.0 x8, 2 x PCI Express 2.0 x4, 1 x PCI Express 2.0 x1, 1 x internal mezzanine connector x8 S1200RPO: 1 x PCI Express 3.0 x8, 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4 S1200RPM: 1 x PCI Express 3.0 x8, 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4
MEMORY CAPACITY	4 x DDR3 UDIMMs 1333 / 1600 ECC 32 GB max
MODULE UPGRADES	S1200RPS: Trusted Platform Module S1200RPL: Intel storage I/O slot, Intel® Remote Management Module 4, Trusted Platform Module S1200RPO / S1200RPM: Intel® I/O Expansion Modules, Intel storage I/O slot, Intel Remote Management Module 4, Trusted Platform Module



1U RACK SYSTEMS

Dimensions (H x W x D)	1.75" x 17.24" x 21.8"
System Cooling	Non-redundant cooling fans
Power Supply	450 W Redundant or 350 W Fixed PSU (Silver Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUs

R1304RPSSFBN	4 x 3.5" fixed HDD Intel® Server Board S1200RPS 350 W Fixed PSU
R1304RPOSHBN	4 x 3.5" hot-swap HDD Intel® Server Board S1200RPO 350 W Fixed PSU
R1304RPM SHOR	4 x 3.5" hot-swap HDD Intel® Server Board S1200RPM 2 x 450 W hot-swap Redundant PSU
R1208RPOSHOR	8 x 2.5" hot-swap HDD Intel® Server Board S1200RPO 2 x 450 W hot-swap Redundant PSU
R1208RPM SHOR	8 x 2.5" hot-swap HDD Intel® Server Board S1200RPM 2 x 450 W hot-swap Redundant PSU

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Intel® Server Systems R1000RP and P4000RP Based on the Intel® Server Board S1200RP

4U PEDESTAL SYSTEMS

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Dimensions (H x W x D)	17.24" x 6.9" x 21.5"
System Cooling	Non-redundant cooling fans
Power Supply	460 W hot-swap PSU (Silver Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUs

P4308RPLSHDR	8 x 3.5" hot-swap HDD Intel® Server Board S1200RPL 2 x 460 W hot-swap Redundant PS
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For more information, visit www.intel.com/go/serversystems

¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

² High efficiency power supply.

³ On interposer (need accessory kit AXXRMM4IOM or AXXRMM4IOMW).

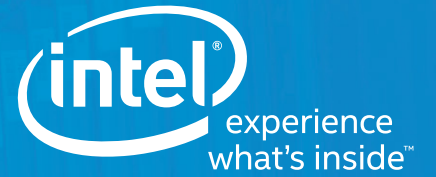
All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/go/serversystems.

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INTEL[®] DATA CENTER BLOCKS (INTEL[®] DCB)

INTEL® DATA CENTER BLOCKS

Reduce complexity and speed time to market with unbranded, fully-validated data center blocks that feature Intel's latest technologies.



HIGHER INTEGRATION AND VALIDATION FOR FASTER TIME-TO-MARKET

The world of computing is getting more complex. In order to help partners keep up with the rapid pace of technological demands, Intel is making it easier to adopt, qualify and sell the latest Intel technology with purpose-built Data Center Blocks. These fully-validated server building blocks feature the required Intel technology to deliver customized solutions that meet complex customer needs. Because these Data Center Blocks come with a higher level of integration and validation, partners can reallocate R&D resources to higher value activities and accelerate time to market with innovative solutions.

Cloud and Software-Defined Infrastructure

Gain increased access to the private cloud and SDI market with fully-validated, pre-configured server systems featuring the latest Intel® technologies and ISV software certifications.

Learn more about Intel® Cloud Data Center Blocks for Microsoft*

High Performance Computing (HPC)

Accelerate your growth in the HPC market with unbranded, semi-integrated 1 and 2U rack system options built-to-order for intensive workloads.

Learn more about Intel® Data Center Blocks for HPC

Servers for Small and Medium Business

Deliver feature-rich, reliable, easy-to-use SMB server solutions that scale as a company grows.

Learn more about Intel® Data Center Blocks for Business

Entry Servers for Small Business

Meet the needs of small enterprises and cloud service providers with cost-effective servers that deliver enterprise-grade performance.

Learn more about Intel® Data Center Blocks for Business

INTEL® DATA CENTER BLOCKS FOR BUSINESS

Intel® Data Center Blocks for Business - Entry Server Block

ENTERPRISE PERFORMANCE FOR ENTRY NEEDS

In a highly competitive market, small enterprise and cloud service providers (CSPs) need a cost-effective server that delivers enterprise-grade performance, reliability and security in an easy-to-manage system. They also need solutions that are able to scale and be more agile, while also being competitively priced. To help address this demand, Intel is providing pre-configured, fully-validated Entry Server Blocks that will help accelerate time to market with server solutions optimized for the needs of small enterprises and CSPs. This 1U rack system includes Intel® components and 3rd party memory, in an unbranded offering that will help reduce the complexity and costs associated with designing, configuring and validating server solutions.

ENTRY SERVER BLOCKS FROM INTEL

PRODUCT	Intel® Data Center Blocks - Entry Server Block
DESCRIPTION	Pre-configured, fully validated 1U rack system, featuring the Intel® Server Board S1200SPO as well as other Intel components and 3rd party memory that can scale as customers grow via SATA and PCIe* expansion options for increased storage functionality or faster networking speed.
ORDER CODE	LR1304SPCFG1
TARGET MARKET	Entry level server for small and medium businesses (SMBs)
SERVER BOARD	Intel® Server Board S1200SPO
FORM FACTOR	1U; microATX 9.6" x 9.6"
PROCESSOR SUPPORT	Single Intel® Xeon® processor E3-1200 v5, up to 80W TDP
CHIPSET	Intel® C236 chipset
MEMORY	32GB (2 x16GB), 2133MHZ, DDR4, UDIMM
SATA PORTS	One DH-10 Serial Port 'A' connector
INTEGRATED LAN	Dual 1GbE – Intel® i210
MANAGEMENT SUPPORT	Intel® Remote Management Module 4 Lite 2 (AXXRMM4LITE2)
CHASSIS	Intel 1U chassis with hot-swappable 4 x 3.5" (2.5" SSD ready) drive trays, dual 450W redundant PSUs (R1304SPOSHOR)
CHASSIS DIMENSIONS	1.7 in (43.18 mm) x 17.26 in (438.5mm) x 21.06 in (548.9 mm) (Height x Width x Depth)
SECURITY	TPM 2.0 Module
FANS	Three managed 40mm single rotor system fans One fan for each installed power supply module
STORAGE	4 x 3.5" (2.5" SSD Ready) hot-swap drive bays 1 x optical drive bay
UPGRADE OPTIONS	Up to 4x 2.5" SSD drives; Intel® Integrated RAID Module options; Intel® I/O Expansion Module options
WARRANTY	3 year limited warranty with options to expand to 5 years



Intel® Data Center Blocks for Business - SMB Server Block

ENTERPRISE PERFORMANCE FOR SMB NEEDS

In a highly competitive market, small and medium businesses need cost-effective IT solutions that deliver business-class performance, security, and manageability. Reduce design, testing and validation costs by taking advantage of fully-validated SMB Server Blocks from Intel. By starting with a higher-level of integration from Intel, you have more flexibility and choice about where to invest R&D spend to ensure you remain competitive and differentiated in the market.

SMB SERVER BLOCKS FROM INTEL

PRODUCT	Intel® Data Center Blocks - SMB Server Blocks
DESCRIPTION	The SMB Server Block is a pre-configured, fully-validated, unbranded system based on Intel® Server Board S1200SPL, Intel® Xeon® Processor E3-1230 v5, Intel® Server Chassis P4304XXSFCN and other Intel components designed specifically for the SMB market.
ORDER CODE	LSVRP4304ES6XX1
TARGET MARKET	Entry level server for small and medium businesses (SMBs)
SERVER BOARD	Intel® Server Board S1200SPL
FORM FACTOR	microATX 9.6" x 9.6"
PROCESSOR SUPPORT	Single Intel® Xeon® processors E3-1230 v5
CHIPSET	Intel® C236 chipset
MEMORY	DDR4 UDIMMs up to 2133 MHz ECC
MEMORY CAPACITY	4 DIMMs, 64GB total
SATA PORTS	8-port
SAS OPTIONS	Intel® Integrated RAID Module
INTEGRATED LAN	Dual port integrated Intel® Ethernet Controller i210 (1 GbE)
MANAGEMENT SUPPORT	Intel® Server Management Software Integrated BMC with IPMI 2.0
CHASSIS	Intel® Server Chassis P4304XXSFCN
CHASSIS DIMENSIONS	17.24 in (438 mm) x 6.81 in (173mm) x 22.05 in (560 mm) (Height X Width X Depth)
PSUs PER CHASSIS	One 365W, fixed
FANS	One rear system fan
STORAGE	4x3.5" in fixed drive trays
UPGRADE OPTIONS	4x DDR4 UDIMM 2133Mhz 4x 3.5"/2.5" drives
WARRANTY	3 year limited warranty



INTEL® DATA CENTER BLOCKS FOR HPC

Making the path to reliable HPC Solutions Easier

The process of configuring and validating the foundational components of an HPC solution that is tuned to meet specific customer requirements is a complex and resource intensive process. To help address these challenges, Intel provides high-quality, fully validated Data Center Blocks for HPC that can reduce complexity for resellers. These HPC Compute Blocks incorporate Intel's latest data center technologies - already optimized to work better together - allowing partners to accelerate time to market with reliable HPC solutions.

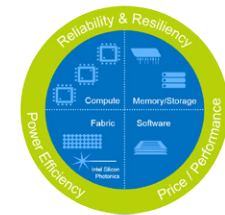
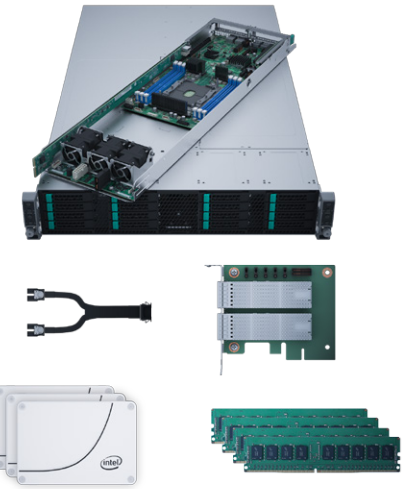
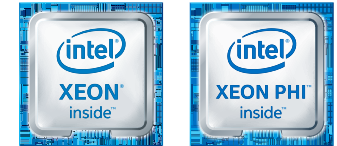
HPC Compute Blocks

BUILD TO ORDER

HPC Compute Blocks are build-to-order and embody the Intel® Scalable System Framework - a flexible blueprint for developing high performance, efficient and reliable HPC systems. These blocks capture the innovations taking place in compute, fabric, storage and memory in a building block optimized for HPC environments. This means partners can order based on the specific needs of their customer. By taking advantage of Intel's latest technologies, as well as world-class engineering and validation expertise, partners can build innovative solutions faster and with a lower total cost of ownership.

MIX AND MATCH: BUILD YOUR OWN RACK

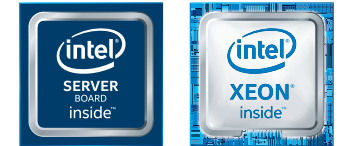
1U and 2U Rack form factors:
HNS2600KPR, HNS2600KPFR
HNS2600TPR, HNS2600TP24R, HNS2600TP24SR, HNS2600TPFR
R1304WT2GSR, R1304WTTGSR
R1208WT2GSR, R1208WTTGSR
R2208WT2YSR, R2208WTTYC1R, R2208WTTYSR
R2224WTTYSR
R2308WTTYSR
R2312WTTYSR
HNS7200AP
Intel® Xeon® processor family
Intel® Xeon Phi® Processor
Intel® Xeon Phi® Coprocessor
Intel® Omni-Path Fabric
Intel Fabric, Ethernet and RAID adapters
Intel® Server Products hardware and accessories from supported families



INTEL® DATA CENTER BLOCKS FOR CLOUD

Intel® Data Center Blocks for Cloud – VMware

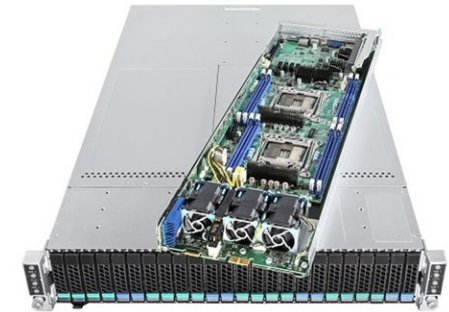
Designing, testing and validating an SDS solution can be a complex and resource-intensive process. Cloud Blocks for VMware are fully-validated, pre-configured server systems with VMware VSAN certifications included. Designed to address the challenges of storage modernization, this offering helps resellers reduce complexity and speed time to market.



INTEL® DATA CENTER BLOCKS FOR CLOUD - VMWARE

PRODUCT	Intel® Data Center Blocks for Clouds - VMware
DESCRIPTION	Intel Cloud Blocks for VMware are fully-validated, pre-configured server systems featuring the latest Intel technology, including Intel® Server Boards and Chassis, Intel® Xeon® processors, Intel® Solid State Drives (SSDs), third-party memory and VMware VSAN certifications in configurations optimized for SDS solutions. These VSAN Ready Nodes from Intel are available in multiple All-Flash (AF) or Hybrid (HY) system configurations, each designed for specific workloads and use cases.
TARGET MARKET	Software-Defined Storage and Private Cloud. Recommended customer use cases include: Business-Critical Applications, Virtual Desktop Infrastructure, Disaster Recovery, Test and Development scenarios, and Enterprise Production Workloads.

ORDER CODES	VMWARE® VSAN PROFILE	INTEL® SERVER SYSTEM	FEATURES*
HYBRID CONFIGURATIONS (Hard for capacity, SSDs for cache)			
VRN2224THY2 ²	Hybrid 2 (HY-2) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 20 VMs and 4K IOPs per node 2 TB raw storage capacity Intel® Xeon® E5-2620 v4 32 GB memory
VRN2224THY42 ²	Hybrid 4 (HY-4) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 30 VMs and 10K IOPs per node 4 TB raw storage capacity Intel® Xeon® E5-2620 v4 128 GB memory
RN2224THY6 ²	Hybrid 6 (HY-6) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 50 VMs and 20K IOPs per node 8 TB raw storage capacity Intel® Xeon® E5-2680 v4 256 GB memory
VRN2208WHY8 ²	Hybrid 8 (HY-8) ²	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 100 VMs and 40K IOPS per node 12 TB raw storage capacity per node Intel® Xeon® E5-2680 v4 384 GB memory
ALL-FLASH CONFIGURATIONS (SATA SSDs for capacity, NVMe® SSDs for cache)			
VRN2208WAF6 ³	All-Flash 6 (AF-6) ³	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 60 VMs and 50K IOPs per node 8 TB raw storage capacity Intel® Xeon® E5-2680 v4 256 GB memory
VRN2208WAF8 ³	All-Flash 8 (AF-8) ³	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 120 VMs and 80K IOPs per node 12 TB raw storage capacity Intel® Xeon® E5-2680 v4 384 GB memory

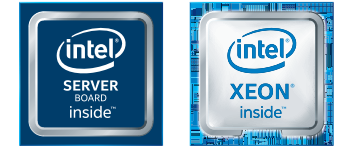


² 3rd party SW stack and HDD NOT included

³ 3rd party SW stack NOT included

Intel® Data Center Blocks for Cloud – Microsoft* Ready Nodes

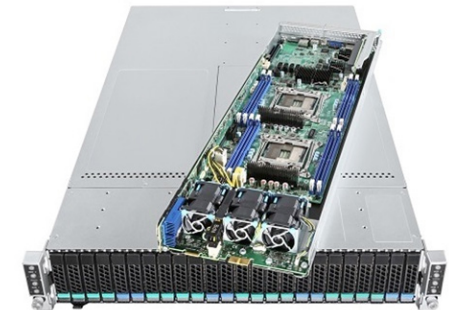
Designing, testing and validating an SDS solution can be a complex and resource-intensive process. Microsoft* Ready Nodes from Intel are fully-validated, pre-configured server systems with Microsoft certifications included. Designed to address the challenges of storage modernization, this offering helps resellers reduce complexity and speed time to market.



CLOUD BLOCKS FROM INTEL

PRODUCT	Intel® Data Center Blocks for – Microsoft Ready Node
DESCRIPTION	Microsoft Ready Nodes from Intel are fully-validated, pre-configured server systems featuring the latest Intel® technology, including Intel® Server Boards and Chassis, Intel® Xeon® processors, Intel® Solid State Drives (SSDs), third-party memory and Microsoft certifications in configurations optimized for SDS solutions. These nodes are available in multiple All-Flash (AF) or Hybrid (HY) system configurations, each designed for specific workloads and use cases.
TARGET MARKET	Software-Defined Storage and Private Cloud. Recommended customer use cases include: Business-Critical Applications, Virtual Desktop Infrastructure, Disaster Recovery, Test and Development scenarios, and Enterprise Production Workloads.

ORDER CODES	VMWARE® VSAN PROFILE	INTEL® SERVER SYSTEM	FEATURES*
HYBRID CONFIGURATIONS (Hard for capacity, SSDs for cache)			
VRN2224THY2 ²	Hybrid 2 (HY-2) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 20 VMs and 4K IOPs per node 2 TB raw storage capacity Intel® Xeon® E5-2620 v4 32 GB memory
VRN2224THY42 ²	Hybrid 4 (HY-4) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 30 VMs and 10K IOPs per node 4 TB raw storage capacity Intel® Xeon® E5-2620 v4 128 GB memory
RN2224THY6 ²	Hybrid 6 (HY-6) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 50 VMs and 20K IOPS per node 8 TB raw storage capacity Intel® Xeon® E5-2680 v4 256 GB memory
VRN2208WHY8 ²	Hybrid 8 (HY-8) ²	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 100 VMs and 40K IOPS per node 12 TB raw storage capacity per node Intel® Xeon® E5-2680 v4 384 GB memory
ALL-FLASH CONFIGURATIONS (SATA SSDs for capacity, NVMe® SSDs for cache)			
VRN2208WAF6 ³	All-Flash 6 (AF-6) ³	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 60 VMs and 50K IOPs per node 8 TB raw storage capacity Intel® Xeon® E5-2680 v4 256 GB memory
VRN2208WAF8 ³	All-Flash 8 (AF-8) ³	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 120 VMs and 80K IOPs per node 12 TB raw storage capacity Intel® Xeon® E5-2680 v4 384 GB memory

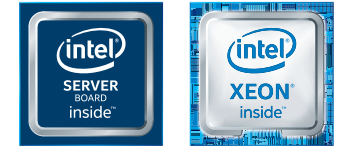


² 3rd party SW stack and HDD NOT included

³ 3rd party SW stack NOT included

Intel Data Center Blocks for Cloud - Microsoft*

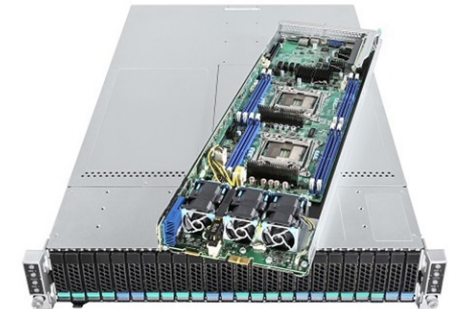
Designing, testing and validating an SDS solution can be a complex and resource-intensive process. Cloud Blocks for Microsoft* are fully-validated, pre-configured server systems with Microsoft certifications included. Designed to address the challenges of storage modernization, this offering helps resellers reduce complexity and speed time to market.



CLOUD BLOCKS FROM INTEL

PRODUCT	Intel® Data Center Blocks for Cloud – Microsoft
DESCRIPTION	Cloud Blocks for Microsoft are fully-validated, pre-configured server systems featuring the latest Intel® technology, including Intel® Server Boards and Chassis, Intel® Xeon® processors, Intel® Solid State Drives (SSDs), third-party memory and Microsoft certifications in configurations optimized for SDS solutions. These nodes are available in multiple All-Flash (AF) or Hybrid (HY) system configurations, each designed for specific workloads and use cases.
TARGET MARKET	Software-Defined Storage and Private Cloud. Recommended customer use cases include: Business-Critical Applications, Virtual Desktop Infrastructure, Disaster Recovery, Test and Development scenarios, and Enterprise Production Workloads.

ORDER CODES	VMWARE® VSAN PROFILE	INTEL® SERVER SYSTEM	FEATURES*
HYBRID CONFIGURATIONS (Hard for capacity, SSDs for cache)			
VRN2224THY2 ²	Hybrid 2 (HY-2) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 20 VMs and 4K IOPs per node 2 TB raw storage capacity Intel® Xeon® E5-2620 v4 32 GB memory
VRN2224THY42 ²	Hybrid 4 (HY-4) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 30 VMs and 10K IOPs per node 4 TB raw storage capacity Intel® Xeon® E5-2620 v4 128 GB memory
RN2224THY6 ²	Hybrid 6 (HY-6) ²	2U 4 node Intel® Server Chassis H2224XXKR2 and Intel® Server Board S2600TPR	<ul style="list-style-type: none"> Up to 50 VMs and 20K IOPs per node 8 TB raw storage capacity Intel® Xeon® E5-2680 v4 256 GB memory
VRN2208WHY8 ²	Hybrid 8 (HY-8) ²	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 100 VMs and 40K IOPS per node 12 TB raw storage capacity per node Intel® Xeon® E5-2680 v4 384 GB memory
ALL-FLASH CONFIGURATIONS (SATA SSDs for capacity, NVMe® SSDs for cache)			
VRN2208WAF6 ³	All-Flash 6 (AF-6) ³	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 60 VMs and 50K IOPs per node 8 TB raw storage capacity Intel® Xeon® E5-2680 v4 256 GB memory
VRN2208WAF8 ³	All-Flash 8 (AF-8) ³	2U 1 node Intel® Server System R2208WTTYSR with Intel® Server Board S2600WTTR	<ul style="list-style-type: none"> Up to 120 VMs and 80K IOPs per node 12 TB raw storage capacity Intel® Xeon® E5-2680 v4 384 GB memory



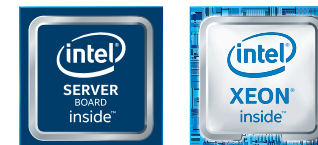
² 3rd party SW stack and HDD NOT included

³ 3rd party SW stack NOT included

INTEL® SERVER PRODUCTS — WINDOWS SERVER* 2016 QUICK REFERENCE GUIDE

Pre-certified system SKUs for Windows Server 2016*

Intel partners know Intel® Server Systems deliver value. They choose them for the expert design, high quality, innovative features and benefits that are hard to find anywhere else. Plus, Intel partners have the backing of Intel with complete access to product and solution expertise, support, and more. Intel delivers value, performance, and reliability that is hard to beat.



	Intel® Data Center Blocks for Business 4U SMB Server Block	Intel® Data Center Blocks for Cloud 2U,4U Nodes		Intel® Data Center Blocks for Cloud 2U, Single Node		
ORDER CODE	LSVRP4304E56XX1	MCB2224THY1 ^{1,4}	MCB2224TAF3 ^{2,5}	MCB2312WHY2 ^{1,5}	MCB2208WAF4 ^{2,5}	MCB2208WAF5 ^{2,5}
CPU	1x Intel® Xeon® Processor E3-1230 v5	2x Intel® Xeon® Processor E5-2620 v4	2x Intel® Xeon® Processor E5-2650 v4	2x Intel® Xeon® Processor E5-2660 v4	2x Intel® Xeon® Processor E5-2680 v4	2x Intel® Xeon® Processor E5-2695 v4
CHASSIS	4U Intel® Server Chassis with 4x3.5 fixed drive trays, one 365W PSU	Intel® H2224XXKR2 Chassis	Intel® H2224XXKR2 Chassis and 4x Intel® Server Board S2600TPR	Intel® R2312WTXXX and R2208WT2YSR server systems	Intel® R2312WTXXX and R2208WT2YSR server systems	Intel® R2312WTXXX and R2208WT2YSR server systems
STORAGE TYPE	SSD	Hybrid (SSD and HDD) ¹	All Flash (SSD and NVMe) ¹	Hybrid (SSD and HDD) ¹	All Flash (SSD and NVMe) ¹	All Flash (SSD and NVMe) ¹
INTEL SSDs	Intel® SSD DC S3510 (120 GB)	2x Intel® SSD S3710 (400 GB)	2x Intel® SSD P3700 (400 GB) and 4x Intel® SSD S3520 (1.6 TB)	4x Intel® SSD S3710 (800 GB)	2x Intel® SSD P3700 (800 GB) and 12x Intel® SSD S3520 (1.2 TB)	2x Intel® SSD P3700 (800 GB) and 6x Intel® SSD P3520 (2 TB)
MAXIMUM MEMORY	16 GB	128 GB	256 GB	256 GB	256 GB	384 GB
RAW CAPACITY	120 GB	8.8 TB	7.2 TB	35.2 TB	16 TB	13.6 TB
REMOTE MANAGEMENT	Intel® Remote Management Module 4 Lite 2	Intel® Remote Management Module 4 Lite 2	Intel® Remote Management Module 4 Lite 2	Intel® Remote Management Module 4 Lite 2	Intel® Remote Management Module 4 Lite 2	Intel® Remote Management Module 4 Lite 2
SERVER BOARD	Intel® Server Board S1200SPL	4x Intel® Server Board S2600TPR	4x Intel® Server Board S2600TPR	Intel® Server Board S2600WT2	Intel® Server Board S2600WT2R	Intel® Server Board S2600WT2R

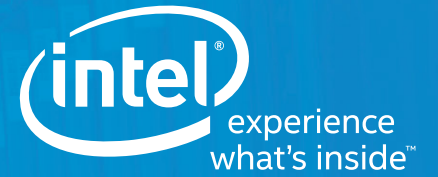
¹ Third party software stack and HDD NOT included.

² Third party software stack NOT included.

³ Requires Windows Server* 2016 Datacenter Edition for Storage Spaces Direct feature support.

⁴ SDDC Standard Version.

⁵ SDDC Premium Version.



INTEL[®] SERVER CHASSIS



INTEL® SERVER CHASSIS

Designed for quality, reliability, and security. Delivering building block for reliable solutions made easy.

1U & 2U RACKS

The latest generation 1U and 2U rack chassis are designed to be flexible and highly serviceable, supporting the Intel® Server Board S2600WT family, models with up to eight 2.5" hot-swap drives, or twelve 3.5" hot-swap drives. The Intel® Server Chassis R1000WT and R2000WT families are designed for cloud and datacenter environments.

HIGH DENSITY RACK CHASSIS

The latest high density 2U rack chassis are designed to support four half-width Intel® Server Boards for S2600KP or S2600TP families. New models are available with up to sixteen 2.5" hot-swap drives or twelve 3.5" hot-swap drives and dual common redundant 2130W power supplies. The new Intel Server Chassis H2216XXLR2 and H2312XXLR2 are designed for high performance computing and cloud environments.

4U RACKABLE SHORT PEDESTALS

Looking for a sleek and flexible short-length pedestal chassis that supports microATX form factor boards? Look at the Intel® Server Chassis P4000S family. The new Intel® Server Chassis P4000XSFDRA allows for easy integration of the microATX form factor Intel® Server Board S1200SPL and S1200SPS. The chassis features dual 460W cold redundant power supplies, and one PCIe* zone and one rear system fan for thermal and acoustic performance.

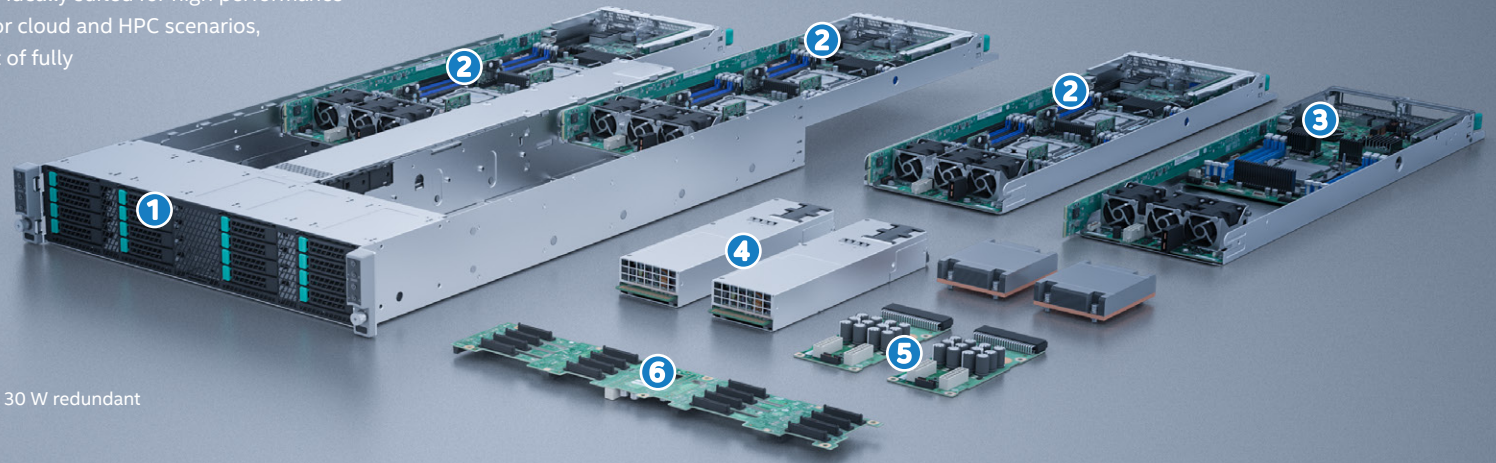
INTEL® SERVER CHASSIS H2000G FAMILY

High-density, 2U rackable chassis supporting up to four half-width server computing modules

The Intel® Server Chassis H2000G family is ideally suited for high performance computing (HPC) and big data solutions. For cloud and HPC scenarios, the H2000G Family is also available as part of fully validated Data Center Blocks from Intel.

Key Features

- Supports two different high-density board family options: Intel® Server Board S2600KP family and Intel® Server Board S2600TP family
- Supports up to 24 2.5-inch or 12 3.5-inch hot-swap drives
- Options for efficient and flexible 1600 W or 2130 W redundant 80 PLUS* Platinum Efficiency power supply
- One 2.5-inch or 3.5-inch 12 Gb/s SAS/SATA backplane



Optional Drive Configurations

* Supports the Intel® Server Board S7200AP



12x 3.5-inch SATA/SAS drive bays – H2312XXKR2*



16x 2.5-inch SATA/SAS drive bays – H2216XXKR2*



24x 2.5-inch SAS drive bays (8 x PCIe* SFF) – H2224XXKR2, H2224XXLR2

1	Drive and Peripheral Bays	2	Intel® Server Board S2600TPFR/TPR Intel® Server Board S2600KPTR/KFR	3	Intel® Server Board S7200AP
4	1600W or 2130W AC Common Redundant Power Supply (CRPS), 80 plus Platinum	5	Power Distribution Boards (PDBs)	6	Hot-Swap Backplane



INTEL® SERVER CHASSIS

The Intel® Server Chassis R1000WT and R2000WT families support the Intel® Server Board S2600WT family. See the Accessories and Spares section of the chosen Intel Server Board configuration guide for recommended part numbers.



INTEL® SERVER CHASSIS R1000WT FAMILY CHASSIS

CHASSIS	Flexible and highly serviceable 1U and 2U rack chassis targeted for cloud and datacenter environments supporting custom form factor server boards.
MODEL	Hot-swap drive models
INTEL® SERVER BOARD SUPPORT¹	S2600WT2R, S2600WTTR
CHASSIS ORDER CODE¹	R1208WTXXX R1304WTXXX
SPARES KIT ORDER CODE²	1U riser for PCI Express* 3.0 x16 FHHL: F1UL16RISER2 SAS cables depend on usage model, reference Configuration Guide
FORM FACTOR	1U Rack
DRIVE BAYS	R1208WTXXX: Up to eight 2.5" hot-swap SAS / SATA drives, up to 4 PCI Express SSD with optional accessory (A1U44X25NVMEDK) R1304WTXXX: Up to four 2.5" or 3.5" hot-swap SAS / SATA drives Optional: Fixed-mount SSD in optical drive bay (requires AXXSSDODDKIT accessory)
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	Included
SYSTEM COOLING	6 x 40mm internal redundant chassis fans
POWER SUPPLIES	(2) Common Redundant 750 W AC (Platinum Efficiency) (2) Common Redundant 750 W DC -48V (Gold Efficiency) NOTE: Power supply sold separately
I/O SLOTS	Up to 2 PCI Express 3.0 x8 (HLFH) with purchase of risers F1UL16RISER2, Intel® I/O Expansion module, SAS module
BACKPLANE	Included
TOOL-LESS FEATURES	Front bezel, PCI card retainer, peripheral bays, PSU installation, and fixed drive carriers
DIMENSIONS (H x W x D)	Rack: 17.25" x 1.72" x 28" (438mm x 44mm x 711mm)
BEZEL FEATURES	Black, control panel, two USB ports
FRONT CONNECTORS	2 x USB
SYSTEM SECURITY	Locking bezel and chassis intrusion

For more information, visit www.intel.com/products/server/chassis or ark.intel.com



INTEL® SERVER CHASSIS R2000WT FAMILY

CHASSIS	Flexible and highly servicable 1U and 2U rack chassis targeted for cloud and datacenter environments supporting custom form factor server boards.
MODEL	Hot-swap drive models
INTEL® SERVER BOARD SUPPORT¹	S2600WT2R, S2600WTTR
CHASSIS ORDER CODE¹	R2000WTXXX R2312WTXXX
SPARES KIT ORDER CODE²	2U 3 slot riser for PCI Express* 3.0 x8: A2UL8RISER2 2U short riser PCI Express 3.0 x8, PCI Express x4: A2UX8X4RISER Accessory 2U 2 slot riser for PCI Express 3.0 x16: A2UL16RISER2 Accessory 2U Hot-swap Drive Cage Upgrade Kit with 4x NVMe SSD support: A2U44X25NVMEDK Accessory 2U PCI-X riser for PCI-X 133 MHz: A2ULPCIXRISER Rear 2-drive cage accessory: A2UREARHSDK SAS cables depend on usage model, reference Configuration Guide See Configuration Guide for detailed list of Spares and Accessories
FORM FACTOR	2U Rack
DRIVE BAYS	R2312WTXXX: Up to 12 x 3.5" hot-swap SAS / SATA drives, support for 2.5" SSDs, optional 2 x 2.5" rear hot-swap drives available with accessory (A2UREARHSDK) R2000WTXXX: Requires accessory bays to support hot-swap drives, support for 2.5" SSDs, optional 2 x 2.5" rear hot-swap drives available with accessory (A2UREARHSDK), Optional: 4 x 2.5" NVMe Express* (PCI Express SSDs) available with accessory (A2U44X25NVMEDK)
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	A2U8X25S3HSDK: 8 x 2.5" drives (Single port) A2U8X25S3HSDK (x3), Storage rack handle A2UHANDLKIT for 24 x 2.5" drives (Single port) A2U8X25S3DPDK: Dual port drive cage kit supports dual port SAS drives up to 24 drives A2U8X35S3HSDK: 8 x 3.5" drives A2U44X25NVMEDK: Upgrade kit supporting up to 4 x 2.5" NVMe* drives, optional 8 x 2.5" HDD backplane See Configuration Guide for detailed list of cables needed
SYSTEM COOLING	6 x 80mm internal redundant and hot-swap chassis fans
POWER SUPPLIES	(2) Common Redundant 750 W AC (Platinum Efficiency) (2) Common Redundant 750 W DC -48V (Gold Efficiency) (2) Common Redundant 1100 W AC (Platinum Efficiency) NOTE: Power supply sold separately
I/O SLOTS	Up to 8 x PCI Express 3.0 with purchase of risers: 2 x A2UL8RISER2 and 1 x A2UX8X4RISER
BACKPLANE	R2312WTXXX: Included R2000WTXXX: See 'Drive Bays'
TOOL-LESS FEATURES	Front bezel, top cover, PCI card retainer, fans, hot-swap drive carriers, hot-swap drive bays, peripheral bays, and PSU installation
DIMENSIONS (H x W x D)	Rack: 17.25" x 3.44" x 28" (438mm x 87mm x 711mm)
BEZEL FEATURES	Black, control panel, security lock, two USB ports
FRONT CONNECTORS	2 x USB
SYSTEM SECURITY	Locking bezel and chassis intrusion



INTEL® SERVER CHASSIS H2000G FAMILY³

CHASSIS	2U rack chassis supporting up to four hot-pluggable Intel® Compute Module HNS2600TP24R, HNS2600TP24SR or HNS2600TP24STR up to 24 2.5 inch hot-swap drives and two 1600W common redundant power supplies.	2U rack chassis supporting up to four hot-pluggable Intel® Compute Module NS2600TP24R, HNS2600TP24SR or HNS2600TP24STR up to 24 2.5 inch hot-swap drives and two 2130 W common redundant power supplies.
TARGET MARKET	Hyper-converged infrastructure/Cloud/Datacenter	Hyper-converged infrastructure/Cloud/Datacenter
MODEL	4 2.5" hot-swap drives, including support for up to eight 2.5" PCIe* small form factor (SFF) devices	4 2.5" hot-swap drives, including support for up to eight 2.5" PCIe* small form factor (SFF) devices
INTEL® SERVER BOARD SUPPORT¹	HNS2600TP24R, HNS2600TP24SR	HNS2600TP24R, HNS2600TP24SR
CHASSIS ORDER CODE¹	H2224XXKR2	H2224XXLR2
SPARES KIT ORDER CODE²	24 x 2.5" Backplane: FHW24X25HS12G Power interposer board: FXXCRPSPIB Power docking board: FH2000NPB24 Bridge board: FHWKPTPBGB24	24 x 2.5" Backplane: FHW24X25HS12G Bridge board: FHWKPTPBGB24 Front control panel kit: FH2000FPANEL2 Power distribution board: FXXCRPSPDB2 Power board: FH2000NPB24 Power in backplane bridge board module: FXXCRPSPIB
FORM FACTOR	2U Rack	2U Rack
DRIVE BAYS	Supports up to twenty-four 2.5" hot-swap SAS drives	Supports up to twenty-four 2.5" hot-swap SAS drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	Included	Included
NVMe*	Support up to eight 2.5" PCIe* SFF devices	Support up to eight 2.5" PCIe* SFF devices
SYSTEM COOLING	3 x 40mm x 56mm dual rotor fans per module	3 x 40mm x 56mm dual rotor fans per module
POWER SUPPLIES	(2) Common Redundant 1600 W (Platinum Efficiency)	(2) Common Redundant 2130 W (Platinum Efficiency)
I/O SLOTS	Up to 2	Up to 2
BACKPLANE	Included combination backplane with PCIe* SFF device support	Included combination backplane with PCIe* SFF device support
TOOL-LESS FEATURES	PSU, Compute module, HDD bays are all hot-swap	PSU, Compute module, HDD bays are all hot-swap
DIMENSIONS (H x W x D)	3.46" x 17.24" x 28.86"	3.46" x 17.24" x 28.86"
BEZEL FEATURES	Black, independate front panel controls for each individual module	Black, independate front panel controls for each individual module
FRONT CONNECTORS	N/A	N/A
SYSTEM SECURITY	Protection for chassis drives with a lock to the chassis	Protection for chassis drives with a lock to the chassis



INTEL® SERVER CHASSIS H2000G FAMILY³

CHASSIS	High-density, 2U rackable chassis supporting up to four half-width Intel® Compute Modules.	High-density, 2U rackable chassis supporting up to four half-width Intel® Compute Modules.
MODEL	3.5" drive model	2.5" drive model
INTEL® SERVER BOARD SUPPORT¹	HNS2600KPR, HNS2600KPFR HNS2600TPR, HNS2600TPFR	HNS2600KPR, HNS2600KPFR HNS2600TPR, HNS2600TPFR
CHASSIS ORDER CODE¹	H2312XXKR2	H2216XXKR2
SPARES KIT ORDER CODE²	12 x 3.5" Backplane: FHW12X35HS12G 1600 W PSU Spare: FXX1600PCRPS Bridge Board: FHWKPTPBGB Control Panel Spare: FH2000FPANEL2 Node Power Board: FH2000NPB2 Power Distribution Board Spares: FXXCRPSPDB2	16 x 2.5" Backplane: FHW16X25HS12G 1600 W PSU Spare: FXX1600PCRPS Bridge Board: FHWKPTPBGB Control Panel Spare: FH2000FPANEL2 Node Power Board: FH2000NPB2 Power Distribution Board Spares: FXXCRPSPDB2
FORM FACTOR	2U Rack	2U Rack
DRIVE BAYS	Up to twelve 2.5" or 3.5" hot-swap SAS / SATA drives	Up to sixteen 2.5" hot-swap SAS / SATA drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	FXX35HSCAR	FXX25HSCAR
NVMe*	N/A	N/A
SYSTEM COOLING	3 x 40mm x 56mm dual rotor fans per module	3 x 40mm x 56mm dual rotor fans per module
POWER SUPPLIES	(2) Common Redundant 1600 W (Platinum Efficiency)	(2) Common Redundant 1600 W (Platinum Efficiency)
I/O SLOTS	Up to 2	Up to 2
BACKPLANE	Included	Included
TOOL-LESS FEATURES	PSU, Compute module, HDD bays are all hot-swap	PSU, Compute module, HDD bays are all hot-swap
DIMENSIONS (H x W x D)	3.42" x 17.24" x 30.35" (87mm x 438mm x 771mm)	3.42" x 17.24" x 28.86" (87mm x 438mm x 771mm)
BEZEL FEATURES	Black, independate front panel controls for each individual module	Black, independate front panel controls for each individual module
FRONT CONNECTORS	N/A	N/A
SYSTEM SECURITY	Protection for chassis drives with a lock to the chassis	Protection for chassis drives with a lock to the chassis



INTEL® SERVER CHASSIS H2000G FAMILY³

CHASSIS	High-density, 2U rackable chassis supporting up to four half-width Intel® Compute Modules.	High-density, 2U rackable chassis supporting up to four half-width Intel® Compute Modules.
MODEL	3.5" drive model	2.5" drive model
INTEL® SERVER BOARD SUPPORT¹	HNS7200AP HNS7200APL HNS2600KPR, HNS2600KPFR HNS2600TPR, HNS2600TPFR	HNS7200AP HNS7200APL HNS2600KPR, HNS2600KPFR HNS2600TPR, HNS2600TPFR
CHASSIS ORDER CODE¹	H2312XXLR2	H2216XXLR2
SPARES KIT ORDER CODE²	12 x 3.5" Backplane: FHW12X35HS12G 2130 W PSU Spare: FXX2130PCRPS Control Panel Spare: FH2000FPANEL2 Node Power Board: FH2000NPB2 Power Distribution Board Spare: FXXCRPSPDB2 Passive Heat-Sink: AXXAPHS Intel® Omni-Path Port Upgrade Kit (2 Port): AXX2PFABKIT 1U Spare PCIe Riser (Slot 2): FHW1U20APRISER 1U PCI Express x16 riser card for Slot 1: FHW1U16APRISER 1U PCI Express x16 riser card for Slot 2: FHW1U20APRISER 1U PCI Express x4 riser card for Slot 2: FHW1U4APRISER Bridge Board Spare: FHWAPBGB	16 x 2.5" Backplane: FHW16X25HS12G 2130 W PSU Spare: FXX2130PCRPS Control Panel Spare: FH2000FPANEL2 Node Power Board: FH2000NPB2 Power Distribution Board Spare: FXXCRPSPDB2 Passive Heat-Sink: AXXAPHS Intel® Omni-Path Port Upgrade Kit (2 Port): AXX2PFABKIT 1U Spare PCIe Riser (Slot 2): FHW1U20APRISER 1U PCI Express x16 riser card for Slot 1: FHW1U16APRISER 1U PCI Express x16 riser card for Slot 2: FHW1U20APRISER 1U PCI Express x4 riser card for Slot 2: FHW1U4APRISER Bridge Board Spare: FHWAPBGB
FORM FACTOR	2U Rack	2U Rack
DRIVE BAYS	Up to twelve 2.5" or 3.5" hot-swap SAS / SATA drives	Up to sixteen 2.5" hot-swap SAS / SATA drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	FXX35HSCAR	FXX25HSCAR
NVMe*	N/A	N/A
SYSTEM COOLING	3 x 40mm x 56mm dual rotor fans per module	3 x 40mm x 56mm dual rotor fans per module
POWER SUPPLIES	(2) Common Redundant 2130 W (Platinum Efficiency)	(2) Common Redundant 2130 W (Platinum Efficiency)
I/O SLOTS	Up to 2	Up to 2
BACKPLANE	Included	Included
TOOL-LESS FEATURES	PSU, Compute module, HDD bays are all hot-swap	PSU, Compute module, HDD bays are all hot-swap
DIMENSIONS (H x W x D)	3.42" x 17.24" x 30.35" (87mm x 438mm x 771mm)	3.42" x 17.24" x 28.86" (87mm x 438mm x 771mm)
BEZEL FEATURES	Black, independate front panel controls for each individual module	Black, independate front panel controls for each individual module
FRONT CONNECTORS	N/A	N/A
SYSTEM SECURITY	Protection for chassis drives with a lock to the chassis	Protection for chassis drives with a lock to the chassis



INTEL® SERVER CHASSIS P4000 FAMILY

CHASSIS	A sleek and flexible mid-length pedestal chassis targeted at small- to medium-sized businesses supporting custom form factor server boards.
MODEL	Fixed drive models (upgradeable to hot-swap drive support)
INTEL® SERVER BOARD SUPPORT¹	S2600CW2R, S2600CWTR, S2600CW2SR, S2600CWTSR, S1200V3RPL, S1200V3RPS
CHASSIS ORDER CODE¹	P4304XXMFEN2, P4304XXMUXX
SPARES KIT ORDER CODE²	120mm Fixed Fan PCI area: FUPMNHFANPCI 120mm Fixed Fan for CPU area: FUPNHFANCPU 1600 W Common Redundant Power Supply: FXX1600PCRPS Accessory kit enables support for 2.5" FF PCI Express* 3.0 SSDs (NVMe): FUP8X25S3NVDK Bezel Spare for P4000 Chassis Supporting Fixed HDD: FUPCRPSCAGE Bracket and Extension Kit for P4000M Chassis Family: AUPMCOPROBR Front bezel with door: FUPBEZELHSD2 High Current P4000 Family Chassis Power Distribution Board Spare: FUPPDBHC2 Hot-swap Drive Cage: FXX25SHCAR Redundant Power Supply Cage for Intel® Server Chassis P4000 Family: FUPCRPSCAGE SRC-B tower passive heat sink 92mm x 100mm: AUPCWPBTP Spare 3.5" Fixed HDD Carriers: FUP4X35NHDK Spare Hot-Swap Fan Kit for Intel® Server Chassis P4000M: FUPMLHSFAN
FORM FACTOR	4U Pedestal (rackable)
DRIVE BAYS	Up to 4 x 3.5" fixed drives, optional 4 or 8 x 3.5" or 8 or 16 x 2.5" hot-swap drive, optional 4 x PCI Express 3.0 SSD support
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	Upgrade: Convert up to 8 SAS / SATA hot-swap drive bays using the upgrade kit: (FUP8X25HSDK) Upgrade: Convert up to 8 hot-swap PCI Express* drive cages to support 2.5" FF PCIe SSDs (NVMe*): FUP8X25S3NVDK
SYSTEM COOLING	P4304XXMFEN2: 2 x 120mm Internal fixed chassis fans P4304XXMUXX : 5 x 80mm Redundant hot-swap internal chassis fans
POWER SUPPLIES	P4308XXMFEN2: (1) Fixed Non-redundant 550 W (Silver Efficiency) P4304XXMUXX: (2) Common Redundant 750 W (Platinum Efficiency) or (2) Common Redundant 1600 W (Platinum Efficiency) sold separately
I/O SLOTS	Up to 6
BACKPLANE	None included
TOOL-LESS FEATURES	Front bezel, EMI cover, side cover, PCI card retainer, peripheral bays, PSU installation, and fixed drive carriers
DIMENSIONS (H x W x D)	Pedestal: 17.24" x 6.81" x 24.9" (438mm x 173mm x 632mm)
BEZEL FEATURES	Black, control panel, two USB ports
FRONT CONNECTORS	2 x USB
SYSTEM SECURITY	Locking bezel and chassis intrusion

Intel® Server Chassis P4000 series requires the separate purchase of a thermal solution kit and air duct specific to the Intel® Server Board selected. See the Accessories and Spares section of the chosen Intel Server Board configuration guide for recommended part numbers. Other boxed Intel® Thermal Solutions are mechanically compatible with the processor socket but are not thermally validated in Intel Server Chassis.



INTEL® SERVER CHASSIS P4000M FAMILY

CHASSIS	A general purpose pedestal chassis targeted at small- to medium-sized businesses supporting CEB and EEB form factor server boards.	
MODEL	Fixed drive models	Hot-swap drive models
INTEL® SERVER BOARD SUPPORT¹	P4308XXMFEN: all S2600CP, all S2600CO	P4308XXMHGC P4216XXMHJC: all S2600CP, all S2600CO
CHASSIS ORDER CODE¹	P4308XXMFEN	P4308XXMHGC
SPARES KIT ORDER CODE²	Mechanical Spares Kit: FUPMMSK Electrical Spares Kit: FUPMESK Air ducts sold separately based on board purchased	Mechanical Spares Kit: FUPMMSK Electrical Spares Kit: FUPMESK Air ducts sold separately based on board purchased
FORM FACTOR	4U Pedestal	4U Pedestal
DRIVE BAYS	Up to eight 3.5" fixed SAS / SATA drives	Up to eight or sixteen 2.5" hot-swap SAS / SATA drives Up to eight 3.5" hot-swap SAS / SATA drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	Upgrade: convert to eight slot hot-swap drive bays using the following Drive Bay upgrade kit: (FUP8X25HSDK), supports eight SAS / SATA hot-swap drives	Share the same hot-swap drive bay kit (FUP8X25HSDK), use as spare
SYSTEM COOLING	2 x 120mm internal chassis fan	2 x 120mm internal chassis fan Redundant Cooling: P4208XXMHGC, P4216XXMHGC, P4216XXMHJC, P4308XXMHGC
POWER SUPPLIES	P4308XXMFEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU	P4308XXMHGC: (2) Common Redundant 750 W (Platinum Efficiency)
I/O SLOTS	Up to 6	Up to 6
BACKPLANE	None included	Included
TOOL-LESS FEATURES	Front bezel, EMI cover, side cover, PCI card retainer, peripheral bays, PSU installation, and fixed drive carriers	Front bezel, side cover, PCI card retainer, hot-swap drive carriers, hot-swap drive bays, peripheral bays, and PSU installation
DIMENSIONS (H x W x D)	Pedestal: 17.24" x 6.81" x 24.9" (438mm x 173mm x 632mm)	Pedestal: 17.24" x 6.81" x 24.9" (438mm x 173mm x 632mm)
BEZEL FEATURES	Black, control panel, three 5.25" peripheral drive slots, eight internal drive carriers, two USB ports	Black, control panel, three 5.25" peripheral drive slots, eight and sixteen hot-swap drive carriers (behind door), security lock, two USB ports
FRONT CONNECTORS	2 x USB	2 x USB
SYSTEM SECURITY	Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the processors, memory, and add-in cards Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole	Front door: Security lock (available on hot-swap HDD SKUs only) Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the processors, memory, and add-in cards Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole



INTEL® SERVER CHASSIS P4000S FAMILY

CHASSIS	A general purpose 4U pedestal chassis supporting the Intel® Server Board S1200SP family with up to four 3.5 inch fixed drives, two 460W common redundant power supplies optimized for thermal and acoustic performance.	A general purpose pedestal chassis optimized for thermal and acoustic performance.	A general purpose pedestal chassis optimized for thermal and acoustic performance.
TARGET MARKET	Small and medium businesses, appliances, embedded, education, and remote-office workloads.		
MODEL	4 x 3.5" Fixed drives	Fixed drive models	Hot-swap drive models
INTEL® SERVER BOARD SUPPORT¹	S1200SPL, S1200SPS	P4304XXSFCN: S1200V3RPL, S1200V3RPS, S2600CP2J	P4304XXSHCN: S1200V3RPL, S1200V3RPS P4304XXSHDR: all S1400FP
CHASSIS ORDER CODE¹	P4000XXSFDR	P4304XXSFCN	P4304XXSHCN, P4304XXSHDR
SPARES KIT ORDER CODE²	Front Panel board: FXXFPANELR Power Distribution Board: AP4000E3V5PDB 4 x 3.5" 6Gb/s hard drive hot-swap backplane: FUP4X35HSBP 8 x 3.5" 6Gb/s hard drive hot-swap backplane: FUP8X35HSBP 4 x 3.5" 12Gb/s hard drive hot-swap backplane: FUP4X35S3HSBP 460W Cold redundant power supply: FXX460GCRPS	Mechanical Spares Kit: FUPSMSK Electrical Spares Kit: FUPSESK Air ducts sold separately based on board purchased	Mechanical Spares Kit: FUPSMSK Electrical Spares Kit: FUPSESK Air ducts sold separately based on board purchased
FORM FACTOR	4U Pedestal	4U Pedestal	4U Pedestal
DRIVE BAYS	Up to four 3.5" fixed drives	Up to four 3.5" fixed SAS / SATA drives	Up to four 3.5" hot-swap SAS / SATA drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	Hot-swap 6Gbps SATA drives: FUP4X35HSDK Hot-swap 6Gbps SATA drives: FUP8X35HSDK Hot-swap 12Gbps SAS drives: FUP4X35S3HSDK Hot-swap 12Gbps SAS drives: 2x FUP4X35S3HSDK	Upgrade: convert to four slot hot-swap drive bays using the following Drive Bay upgrade kit: (FUP4X35HSDK), supports four SAS / SATA hot-swap drives	Share the same hot-swap drive bay kit (FUP4X35HSDK), use as a spare
SYSTEM COOLING	(2) 92mm fixed fans (one PCIe* zone and one rear system fan)	2 x 92mm internal chassis fan (single fan in P4304XXSFCN)	2 x 92mm internal chassis fan (single fan in P4304XXSHCN)
POWER SUPPLIES	(2) Common Redundant 460 W (Gold Efficiency)	P4304XXSFCN: (1) Fixed 365 W (Silver Efficiency)	P4304XXSHCN: (1) Fixed 365 W (Silver Efficiency) P4304XXSHDR: (2) Common Redundant 460 W (Gold Efficiency)
I/O SLOTS	Up to 3	Up to 6	Up to 6
BACKPLANE	None included	None included	None included
TOOL-LESS FEATURES	Front bezel, EMI cover, PCI card retainer, peripheral bays, power supply unit installation, and fixed drive carriers	Front bezel, EMI cover, side cover, PCI card retainer, peripheral bays, PSU installation, and fixed drive carriers	Front bezel, side cover, PCI card retainer, hot-swap drive carriers, hot-swap drive bay, peripheral bays, and PSU installation
DIMENSIONS (H x W x D)	17.24" x 6.81" x 22.05" (438mm x 173mm x 560mm)	Pedestal: 17.24" x 6.81" x 21.5" (438mm x 173mm x 546mm)	Pedestal: 17.24" x 6.81" x 21.5" (438mm x 173mm x 546mm)
BEZEL FEATURES	Black, control panel, three 5.25" peripheral drive bays, four internal drive bays	Black, control panel, three 5.25" peripheral drive bays, four internal drive bays, two USB ports	Black, control panel, three 5.25" peripheral drive bays, four hot-swap drive bays and carriers (behind door), security lock, two USB ports
FRONT CONNECTORS	Two USB 3.0 ports	2 x USB	2 x USB
SYSTEM SECURITY	Protection for chassis drives with a lock to the chassis	Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the processors, memory, and add-in devices Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole	Front door: Security lock (available on hot-swap drive SKUs only) Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the processors, memory, and add-in devices Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole

For more information, visit www.intel.com/products/server/chassis or ark.intel.com

¹ Refer to <http://support.intel.com/support/motherboards/server> for up-to-date details on server boards supported by each chassis.

² For complete spare and accessory list, please download the latest configuration guide from Spare Parts list and Configuration Guide at <http://support.intel.com/support/motherboards/server>

³ Intel® Server Chassis H2000 series requires the separate purchase of Intel® Compute Modules. See the Accessories and Spare Parts section of the chosen Intel® Server Board configuration guide for recommended part numbers.

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/products/server/chassis or ark.intel.com.

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INTEL® STORAGE SYSTEMS

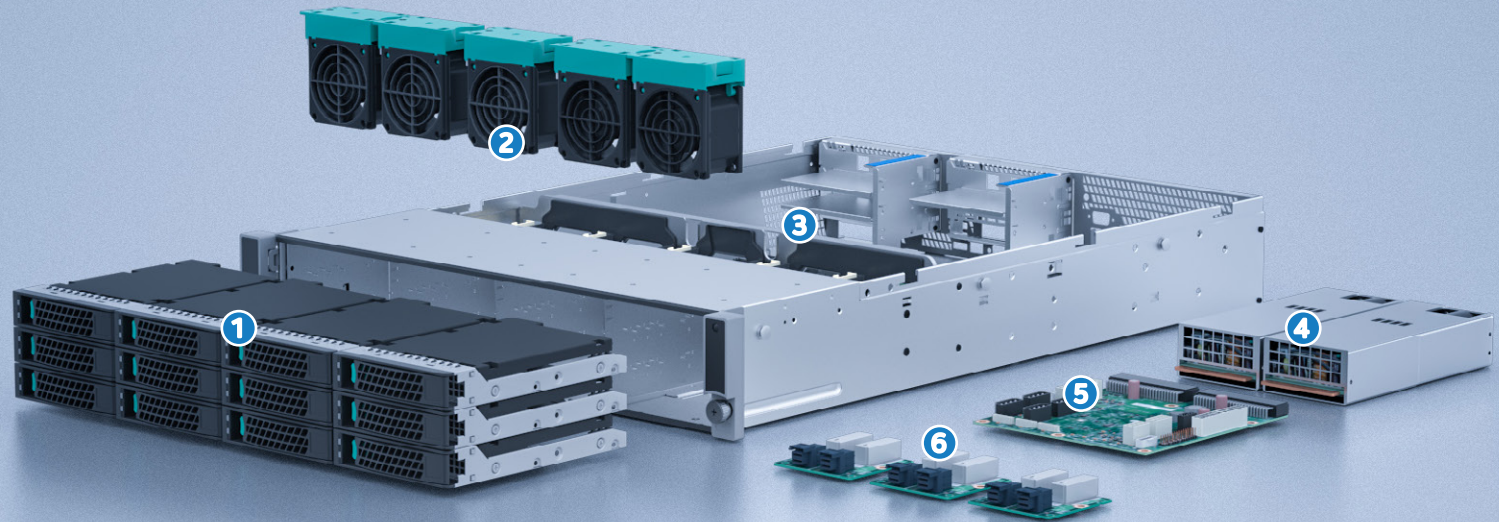
INTEL® STORAGE SYSTEM JBOD2312S3SP

Intel® JBOD2312S3SP

2U form factor storage system supporting up to 48-TB 3.5-in. drives.

Key Features

- Options for single or redundant SAS/SATA 6G connectivity via SFF-8088
- Fan and PSU monitoring and notification via SES
- Redundant power and cooling
- Less than 25-inch deep chassis (3.44 inches by 16.93 inches by 24.95 inches)
- Allows for multiple levels of cascading — multiple JBOD's can be connected in a chained sequence
- Dual-port backplane offering full redundancy
- Options to support up to 48-TB storage capacity



1	12 x 3.5-in. drives	2	Redundant cooling with monitoring and notification via SES	3	Redundant power with monitoring and notification via SES
4	Power distribution board	5	SAS 3.0 Converter	6	SAS Expanders with optional redundant configuration

Systems do not include processors.

Intel® Storage System JBOD2000 Product Family

The Intel® Storage System JBOD2000 product family works seamlessly with Intel® Server Systems and Intel® RAID and can even be used as a virtual RBOD by using Intel® RAID Controller RS25SB008 or an Intel® Intelligent RAID module. Combine with Intel® Solid State Drives using Intel® SSD Cache Technology, or set up a network using a SAS switch to serve multiple servers. With several configuration options available, it is a flexible and expandable storage system that simplifies your server environment.

DESCRIPTION	A flexible and expandable storage system with single- and multi-cable connectivity, redundant fans, and options for redundant power supplies simplifies your server configuration. Features 12 x 3.5" drives or 24 x 2.5" drives and works seamlessly with Intel® Server Systems and Intel® RAID for a complementary storage solution. Up to 48 TB storage capacity possible. Cascading up to 2 levels. (Extended life product.)
TARGET MARKET	Enterprise / storage

2U RACK SYSTEMS

Dimensions (H x W x D)	3.44" x 16.93" x 27.95"
System Cooling	Redundant cooling fans
Power Supply	460 W Redundant PSU (Gold Efficiency)
Other Components	Dual-port backplane for full redundancy Fan and PSU monitoring via SES
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

JBOD2312S2SP	12 x 3.5" hot-swap HDD 36-port SAS expander 460 W AC PSU Single SAS/SATA 6.0 Gb/s 2 x external SFF- 8088 connectors
JBOD2224S2DP	24 x 2.5" hot-swap HDD 2 x 36-port SAS expander 2 x 460 W AC PSU Redundant SAS/SATA 6.0 Gb/s 4 x external SFF-8088 connectors
JBOD2312S3SP	12 x 3.5" hot-swap HDD 2 x 36-port SAS expander 2 x 460 W AC PSU Single SAS/SATA 12.0 Gb/s 4 x external SFF-8088 connectors



For the latest product SKUs and specifications, visit <http://ark.intel.com>

For more information, visit www.intel.com/go/serverproducts

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

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INTEL® RAID





INTEL® RAID

Experience exceptional data protection, faster performance, and ease of use.

INTEL® RAID SAS 3.0 GENERATION PRODUCTS

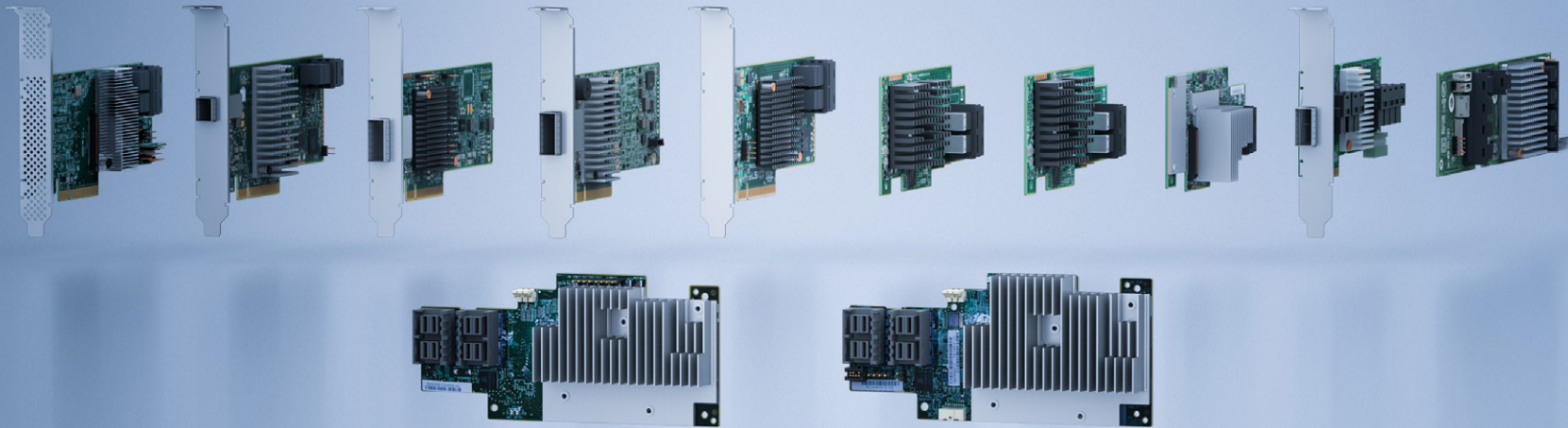
The Intel® 12Gb/s SAS RAID controllers, featuring LSI* SAS3100 series RAID-on-Chip (ROC) processors, offer significant performance enhancements for solutions architected with 12Gb/s or 6Gb/s SAS drives.

INTEL® RAID EXPANDER BOARDS

For high drive count solutions, Intel offers 12Gb/s expander boards, available in midplane and add-in card form factors.

INTEL® RAID PREMIUM FEATURES

Get more performance and data protection with Premium Features for Intel® RAID solutions. When combined with Intel® RAID controllers, you can further enhance storage applications and deliver higher ROI for your server boards and systems.



Tailor a Solution to Match Your Storage Needs

Intel offers multiple categories of RAID products to protect data, increase performance, scale storage, and enhance server availability. A brief description of each category is listed below.

Controller Cards and Modules

- **Excellent:** Intel® Integrated Server RAID signifies unique system boards that are designed to add value above that of a standard RAID add-in card to Intel® Server Boards and Systems.
- **Better:** Intel® RAID Controllers are add-in cards designed to enable a wide variety of RAID solutions.
- **Good:** Intel® Embedded Server RAID Technology Software RAID Activation Keys are designed for entry-level RAID solutions.

RAID Cache Backup

- Battery Backup Units (BBU) and Maintenance Free Backup Units (MFBU) are available for hardware RAID products with embedded cache. The backup options are listed in the “Backup Option” row of the product tables.

Expander Boards

- Intel® RAID Expander Cards are intended for any system with more than 8 drives. As an example of use, 8 RAID ports can be expanded to 24 ports.

Premium Feature Keys

- Several upgrade features can be added to enhance the performance and data protection of Intel’s intelligent RAID cards and modules.

Cable Kits and Converter Boards

- Newer-generation RAID products do not ship with cables, as multiple options exist depending on the system in which the RAID products are installed. Therefore, Intel offers a variety of cables. A converter board that allows for two internal 8087 connectors to be converted to two external 8088 connectors is also available.

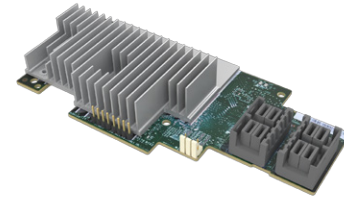
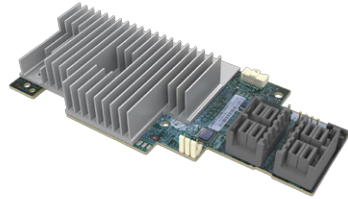
For the latest product SKUs and specifications, visit <http://ark.intel.com>

Intel® Integrated RAID Modules (12Gb/s SAS 3.0)



CONTROLLER	INTEL® INTEGRATED RAID MODULE RMS3CC080	INTEL® INTEGRATED RAID MODULE RMS3CC040	INTEL® INTEGRATED RAID MODULE RMS3HC080	INTEL® INTEGRATED RAID MODULE RMS3JC080
DESCRIPTION	12 Gb/s SAS/SATA full-featured RAID mezzanine module with eight internal connectors and a storage I/O connector	12 Gb/s SAS/SATA full-featured RAID mezzanine module with four internal connectors and a storage I/O connector	12 Gb/s SAS/SATA entry-level RAID mezzanine module with eight internal ports and a storage I/O connector	12 Gb/s SAS/SATA entry-level RAID mezzanine module with eight internal ports and a storage I/O connector
MARKET SEGMENT	Full-featured RAID	Full-featured RAID	Entry-level RAID	Entry-level RAID
ORDER CODE	RMS3CC080	RMS3CC040	RMS3HC080	RMS3JC080
PROCESSOR	LSI* 3108 ROC	LSI* 3108 ROC	LSI* 3008 IOC	LSI* 3008 IOC
ONBOARD CACHE MEMORY	1 GB DDR3	1 GB DDR3	N/A	N/A
PCI E* INTERFACE	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8
PORTS	8 Internal ports	4 Internal ports	8 Internal ports	8 Internal ports
CHASSIS COMPATIBILITY	Mezzanine-capable motherboard in 1U (or greater) chassis	Mezzanine-capable motherboard in 1U (or greater) chassis	Mezzanine-capable motherboard in 1U (or greater) chassis	Mezzanine-capable motherboard in 1U (or greater) chassis
RAID LEVELS	0, 1, 10, 5, 50, 6, 60	0, 1, 10, 5, 50, 6, 60	0, 1, 10, 5, 50 and JBOD mode	0, 1, 1E, 10 and JBOD mode
CACHE BACKUP OPTIONS	AXXRMFBUS	AXXRMFBUS	N/A	N/A
CABLES	Purchased separately	Purchased separately	Purchased separately	Purchased separately
INTEL® SERVER BOARD SUPPORT	Select Intel® Xeon® server boards with a storage I/O module connector	Select Intel® Xeon® server boards with a storage I/O module connector	Select Intel® Xeon® server boards with a storage I/O module connector	Select Intel® Xeon® server boards with a storage I/O module connector
AVAILABILITY	Now	Now	Now	Now
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

Intel® Integrated RAID Modules (12Gb/s SAS 3.0) - High Port Count



CONTROLLER	INTEL® INTEGRATED RAID MODULE RMS3AC160	INTEL® INTEGRATED RAID MODULE RMS3VC160
DESCRIPTION	A 12 Gb/s SAS/SATA full-featured RAID mezzanine module with 16 internal ports and dual core RAID-On-Chip (ROC)	A 12 Gb/s SAS/SATA JBOD mezzanine module with sixteen internal ports and dual core RAID-On-Chip (ROC)
MARKET SEGMENT	Full-featured RAID	Full-featured RAID
ORDER CODE	RMS3AC160	RMS3VC160
PROCESSOR	LSI* 3316 ROC	LSI* 3216 ROC
ONBOARD CACHE MEMORY	2 GB DDR3	NA
PCI E* INTERFACE	PCI Express 3.0 x8	PCI Express 3.0 x8
PORTS	16 internal ports	16 internal ports
CHASSIS COMPATIBILITY	Mezzanine-capable motherboard in 2U (or greater) chassis	Mezzanine-capable motherboard in 1U (or greater) chassis
RAID LEVELS	0, 1, 10, 5, 50, 6, 60	N/A (JBOD mode only)
CACHE BACKUP OPTIONS	AXXRMFBU6	NA
CABLES	Purchased separately	Purchased separately
INTEL® SERVER BOARD SUPPORT	Select Intel® Xeon® server boards with a storage I/O module connector	Select Intel® Xeon® server boards with a storage I/O module connector
AVAILABILITY	Q4'16	Now
WARRANTY	3 year limited warranty	3 year limited warranty

Intel® RAID Controllers (12Gb/s SAS 3.0) - Full-Featured



CONTROLLER	INTEL® RAID CONTROLLER RS3DC080	INTEL® RAID CONTROLLER RS3DC040	INTEL® RAID CONTROLLER RS3SC008	INTEL® RAID CONTROLLER RS3MC044
DESCRIPTION	A 12 Gb/s SAS/SATA full-featured RAID adapter (PCIe* AIC) with 8 internal ports	A 12 Gb/s SAS/SATA full-featured RAID adapter (PCIe* AIC) with 4 internal ports	A12 Gb/s SAS/SATA full-featured RAID adapter (PCIe AIC) with 8 external ports	A 12 Gb/s SAS/SATA full-featured RAID adapter (PCIe AIC) with 4 internal and 4 external ports
MARKET SEGMENT	Full-featured RAID	Full-featured RAID	Full-featured RAID	Full-featured RAID
ORDER CODE	RS3DC080	RS3DC040	RS3SC008	RS3MC044
PROCESSOR	LSI* SAS3108 ROC	LSI* SAS3108 ROC	LSI* SAS3108 ROC	LSI* SAS3108 ROC
ONBOARD CACHE MEMORY	1GB DDR3	1GB DDR3	1GB DDR3	1GB DDR3
PCI E* INTERFACE	PCI Express* 3.0 x8	PCI Express 3.0 x8	PCI Express 3.0 x8	PCI Express 3.0 x8
PORTS	8 Internal ports	4 Internal ports	8 External ports	4 Internal ports / 4 External ports
CHASSIS COMPATIBILITY	MD2 compliant PCIe x8	MD2 compliant PCIe x8	MD2 compliant PCIe x8	MD2 compliant PCIe x8
RAID LEVELS	0, 1, 10, 5, 50, 6, 60	0, 1, 10, 5, 50, 6, 60	0, 1, 10, 5, 50, 6, 60	0, 1, 10, 5, 50, 6, 60
CACHE BACKUP OPTIONS	AXXRMFBU4	AXXRMFBU4	AXXRMFBU4	AXXRMFBU4
CABLES	Purchased separately	Purchased separately	Purchased separately	Purchased separately
AVAILABILITY	Now	Now	Now	Now
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

Intel® RAID Controllers (12Gb/s SAS 3.0) – Entry Level



CONTROLLER	INTEL® RAID CONTROLLER RS3WC080	INTEL® RAID CONTROLLER RS3UC080	INTEL® RAID CONTROLLER RS3FC044
DESCRIPTION	A 12 Gb/s SAS/SATA entry-level RAID adapter (PCIe AIC) with 8 internal ports	A 12 Gb/s SAS/SATA entry-level RAID Adapter (PCIe AIC) with 8 internal ports	A 12 Gb/s SAS/SATA entry-level RAID Adapter (PCIe AIC) with 4 internal and 4 external ports
MARKET SEGMENT	Entry-level	Entry-level	Entry-level
ORDER CODE	RS3WC080	RS3UC080	RS3FC044
PROCESSOR	LSI* SAS3008 IOC	LSI* SAS3008 IOC	LSI* SAS3008 IOC
ONBOARD CACHE MEMORY	N/A	N/A	N/A
PCI E* INTERFACE	PCI Express* 3.0 x8	PCI Express 3.0 x8	PCI Express 3.0 x8
PORTS	8 Internal ports	8 Internal ports	4 Internal ports / 4 External ports
CHASSIS COMPATIBILITY	MD2 compliant PCIe x8	MD2 compliant PCIe x8	MD2 compliant PCIe x8
RAID LEVELS	0, 1, 10, 5, 50 and JBOD mode	0, 1, 1E, 10 and JBOD mode	0, 1, 1E, 10 and JBOD mode
CACHE BACKUP OPTIONS	N/A	N/A	N/A
CABLES	Purchased separately	Purchased separately	Purchased separately
AVAILABILITY	Now	Now	Now
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty

Intel® RAID Controllers (12Gb/s SAS 3.0) - JBOD Only



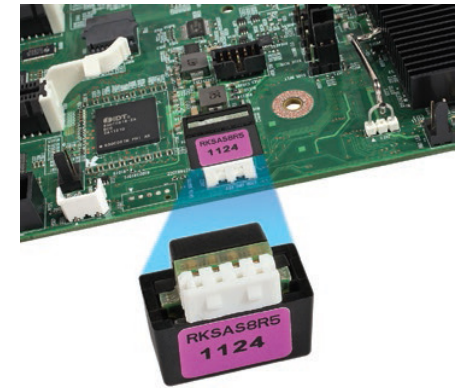
CONTROLLER	INTEL® RAID CONTROLLER RS3GC008	Intel® RAID Controller RS3UC080J
DESCRIPTION	A 12 Gb/s SAS/SATA JBOD Adapter (PCIe AIC) with 8 external ports	A 12 Gb/s SAS/SATA JBOD Adapter (PCIe AIC) with 8 internal ports
MARKET SEGMENT	JBOD	JBOD
ORDER CODE	RS3GC008	RS3UC080J
PROCESSOR	LSI* SAS3008	LSI* SAS3008
ONBOARD CACHE MEMORY	N/A	N/A
PCI E* INTERFACE	PCI Express* 3.0 x8	PCI Express 3.0 x8
PORTS	8 External ports	8 Internal ports
CHASSIS COMPATIBILITY	MD2 compliant PCIe x8	MD2 compliant PCIe x8
RAID LEVELS	JBOD mode (SAS Connectivity)	N/A (JBOD mode only)
CACHE BACKUP OPTIONS	N/A	N/A
CABLES	Purchased separately	Purchased separately
AVAILABILITY	Now	Now
WARRANTY	3 year limited warranty	3 year limited warranty

Tailor a Solution to Match Your Storage Needs

Most Intel® Xeon® 5500 and 5600 Series server boards include Intel® Embedded Server RAID Technology 2, which provides RAID 0, 1, and 10. Software RAID 5 can be enabled on these server boards by adding the AXXRAKSW5 activation key.

Most Intel Xeon E5 Series server boards include 4 SCU storage ports and Intel Embedded Server RAID Technology 2, which provides RAID 0, 1, and 10 for SATA devices. Additional storage ports, SAS, and RAID 5 are available with activation keys corresponding to the following table.

ACTIVATION KEY	PRODUCT NAME	SCU STORAGE FUNCTIONALITY
None	N/A	4-port SATA key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (no key)
RKSATA4R5	Intel® RAID C600 Upgrade Key RKSATA4R5	4-port SATA key with Intel Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (BLACK)
RKSATA8	Intel RAID C600 Upgrade Key RKSATA8	8-port SATA key with Intel Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (BLUE)
RKSATA8R5	Intel RAID C600 Upgrade Key RKSATA8R5	8-port SATA key with Intel Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (WHITE)
RKSAS4	Intel RAID C600 Upgrade Key RKSAS4	4-port SAS key with Intel Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, and 10 (GREEN)
RKSAS4R5	Intel RAID C600 Upgrade Key RKSAS4R5	4-port SAS key with Intel Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, and 10 (YELLOW)
RKSAS8	Intel RAID C600 Upgrade Key RKSAS8	8-port SAS key with Intel Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, and 10 (ORANGE)
RKSAS8R5	Intel RAID C600 Upgrade Key RKSAS8R5	8-port SAS key with Intel Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10, and Intel Rapid Storage Technology Enterprise RAID 0, 1, and 10 (PURPLE)



Intel® RAID Expanders (12 Gb/s SAS 3.0)



EXPANDER BOARD INTEL® RAID EXPANDER RES3FV288

DESCRIPTION	12 Gb/s SAS/SATA expander adapter (PCIe AIC) with 28 internal ports and 8 external ports
ORDER CODE	RES3FV288
PCI E* INTERFACE	PCIe x4 (for Power Only)
PORTS	28 Internal ports / 8 External ports
CHASSIS COMPATIBILITY	MD2 compliant PCIe* x4 or chassis mount
POWER OPTIONS FOR EXPANDERS	PCIe x4 or 4-pin Molex
MANAGEMENT	SGPIO
FAULT LED HEADERS	Includes 2 pin headers to support each SAS port
AVAILABILITY	Now
WARRANTY	3 year limited warranty



EXPANDER BOARD INTEL® RAID EXPANDER RES3TV360

DESCRIPTION	12 Gb/s SAS/SATA Expander Midplane Board with 36-ports
ORDER CODE	RES3TV360
PCI E* INTERFACE	N/A
PORTS	36 Internal ports
CHASSIS COMPATIBILITY	2U (or greater) system; requires chassis mount
POWER OPTIONS FOR EXPANDERS	4-pin Molex
MANAGEMENT	SGPIO
FAULT LED HEADERS	Includes 2 pin headers to support each SAS port
AVAILABILITY	Now
WARRANTY	3 year limited warranty

Intel® RAID Premium Features

These features are available as an upgrade for all LSI* SAS2108 processor-based Intel® RAID products. To identify products with this processor, please refer to the Processor row of the preceding feature tables. The Premium Feature Keys are described below.

PREMIUM FEATURE	SSD CACHE WITH FAST-PATH I/O	DRIVE ENCRYPTION MANAGEMENT	RAPID RECOVERY SNAPSHOT
Key Benefits	SSD Cache allows Solid State Drives (SSD) to be utilized as additional cache for the RAID controller. The cache can be used for both reads and writes to assist storage performance.	Drive encryption management enables authentication key management, auto-lock, and instant erase of selfencrypting drives (SED).	Rapid Recovery Snapshot allows users to capture source volume data changes and either restore files or rollback applications to a previous Point in Time (PiT).
	Fast-Path I/O accelerates communication with SSDs providing up to 150,000 I/O reads per second for small, random block-size I/O activity.	All drives eventually leave the data center and the use of SEDs helps reduce risk of data breaches.	Rapid recovery of lost data from disk can occur within minutes, minimizing the downtime experienced by users, and eliminating the lengthy process of restoring data from tape.
		Instant-erase significantly reduces the cost and time of repurposing or retiring drives.	By isolating a server's boot volume to a separate virtual drive and enabling the auto snapshot feature, users can gain confidence knowing that bootable snapshots exist, should operating system corruption occur.
Order Code	AXXRPFKSSD	AXXRPFKDE	AXXRPFKNSH
Availability	Now	Now	Now

These features are available as an upgrade for all LSI* SAS2208 and SAS3108 processor-based Intel® RAID products. To identify products with these processors, please refer to the Processor row of the preceding feature tables. The Premium Feature Keys are described below.

PREMIUM FEATURE	SSD CACHE 2	DRIVE ENCRYPTION MANAGEMENT	RAPID RECOVERY SNAPSHOT ¹
Key Benefits	SSD Cache allows Solid State Drives (SSD) to be utilized as additional cache for the RAID controller. Frequently accessed information is stored in the cache, allowing rapid access.	Drive encryption management enables authentication key management, auto-lock, and instant erase of selfencrypting drives (SED).	Rapid Recovery Snapshot allows users to capture source volume data changes and either restore files or rollback applications to a previous Point in Time (PiT).
	NEW: SSD Cache capacity of up to 2 TB possible for SAS3108-based products.	All drives eventually leave the data center and the use of SEDs helps reduce risk of data breaches.	Rapid recovery of lost data from disk can occur within minutes, minimizing the downtime experienced by users, and eliminating the lengthy process of restoring data from tape.
	NEW: SSD partitioning so that a portion of the drive is available to the operating system and the remainder for cache.	Instant-erase significantly reduces the cost and time of repurposing or retiring drives.	By isolating a server's boot volume to a separate virtual drive and enabling the auto snapshot feature, users can gain confidence knowing that bootable snapshots exist, should operating system corruption occur.
Order Code	AXXRPFKSSD2	AXXRPFKDE2	AXXRPFKNSH2
Availability	Now	Now	Now

¹ Rapid Recovery Snapshot is only available for LSI2108-based products.

Intel® RAID Premium Features

- The High Availability Storage solution provides fault tolerance capabilities as a key part of a high-availability data storage system by combining redundant RAID controllers, computer nodes, cable connections, SAS expanders, and dual-port SAS drives.
- Shared storage across two servers can improve performance and at the same time support either failover clustering or cluster-in-a-box configurations. Also supported is Microsoft* failover clustering, controller-to-controller intercommunication over SAS, write-back cache coherency, shared and exclusive DB I/O policies, and exclusive access that allows the operating system to boot from the controller.
- **NEW:** The High Availability Storage kit is now available for LSI3108-based products. When used with 12 Gb/s SAS-3, cache coherency performance between the two RAID controllers is significantly improved.
- **NEW:** The High Availability Storage feature now includes the capability of Single Server High Availability when used with an LSI3108-based Intel® RAID product.

Order code: AXXPFKHA2

Availability: Now

Cable Kits and Converter Boards

The following cables are available for connecting Intel® RAID cards and modules to storage devices and drive bays. Intel® cables are designed to a high-quality specification and include the ability to bend at a very small radii. These cables allow low-profile Intel RAID products with vertical 8087 connectors to be used in 2U rack chassis while installed in a standard PCI Express* slot. Intel offers many other cable kits that help optimize the integration of RAID products into specific Intel® Server Systems. For a list of these cables, refer to the Server Board and System Configuration Guide available on the support web site for each given Intel Server System.

CABLE KIT ORDER CODE	NUMBER OF CABLES INCLUDED IN KIT	INITIATOR CONNECTOR	TARGET CONNECTOR	LENGTH
AXXCBL650HDMS	2	HD mini-SAS straight ¹	8087 mini-SAS straight ¹	650mm
AXXCBL730HDMS	2	HD mini-SAS straight ¹	8087 mini-SAS straight ¹	730mm
AXXCBL750MS7P	2	8087 mini-SAS straight ¹	Four x 7-pin SATA style	750mm
AXXCBL650MSMS	2	8087 mini-SAS straight ¹	8087 mini-SAS straight ¹	650mm



CONVERTER BOARDS	ORDER CODE	DESCRIPTION	INTERNAL CONNECTORS	EXTERNAL CONNECTORS
Intel® RAID Converter Board RCVT8788	AXXRCVT8788	Small form factor board with brackets for installation in a standard or low-profile chassis cutout. Intended to be used to convert internal ports to external ports. Cables are not included.	Two x 8087 mini-SAS ¹	Two x 8088



¹ Cable is reversible so that either connector can be on the target or initiator side. Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

MOUNTING BRACKET	ORDER CODE	DESCRIPTION	INTERNAL CONNECTORS	EXTERNAL CONNECTORS
Intel® RAID Battery Remote Mounting Bracket	AXXBUBRKTP	A mounting bracket that fits in a low-profile PCI Express* slot and holds two RAID batteries or Maintenance Free Backup Units.	None	None



For the latest product SKUs and specifications, visit <http://ark.intel.com>

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com.

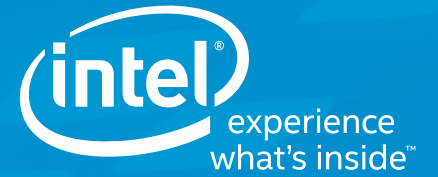
Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

For more information go to <http://www.intel.com/performance>.

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INTEL[®] ETHERNET SERVER ADAPTERS

INTEL® ETHERNET SERVER ADAPTERS

Intel® Ethernet.
It Just Works.

INTEL® ETHERNET CONVERGED NETWORK ADAPTERS

The 10/40 gigabit family of adapters addresses the demanding needs of the next-generation agile data center by providing amazing features for server and network virtualization, flexibility for LAN and SAN networks, and proven, reliable performance. With network virtualization, the next big trend in creating an agile data center, the Intel® Ethernet Converged Network Adapter XL710 family is ready to help you take that next step.

INTEL® ETHERNET SERVER ADAPTERS

Intel® Ethernet 1GbE Server Adapters are available in single, dual and quad port configurations. Support for Intel® Virtualization Technology for Connectivity, Storage over Ethernet, Intelligent Offloads and Intel® Ethernet Power Management are some of the advanced features available in Intel® Ethernet Server Adapters.

INTEL® ETHERNET ACCESSORIES

Explore the range of Intel® Ethernet SFP+ and Intel® Ethernet QSFP+ Optics, Intel® Ethernet SFP+ Twinaxial Cables and Intel® Ethernet QSFP+ Twinaxial Cables.



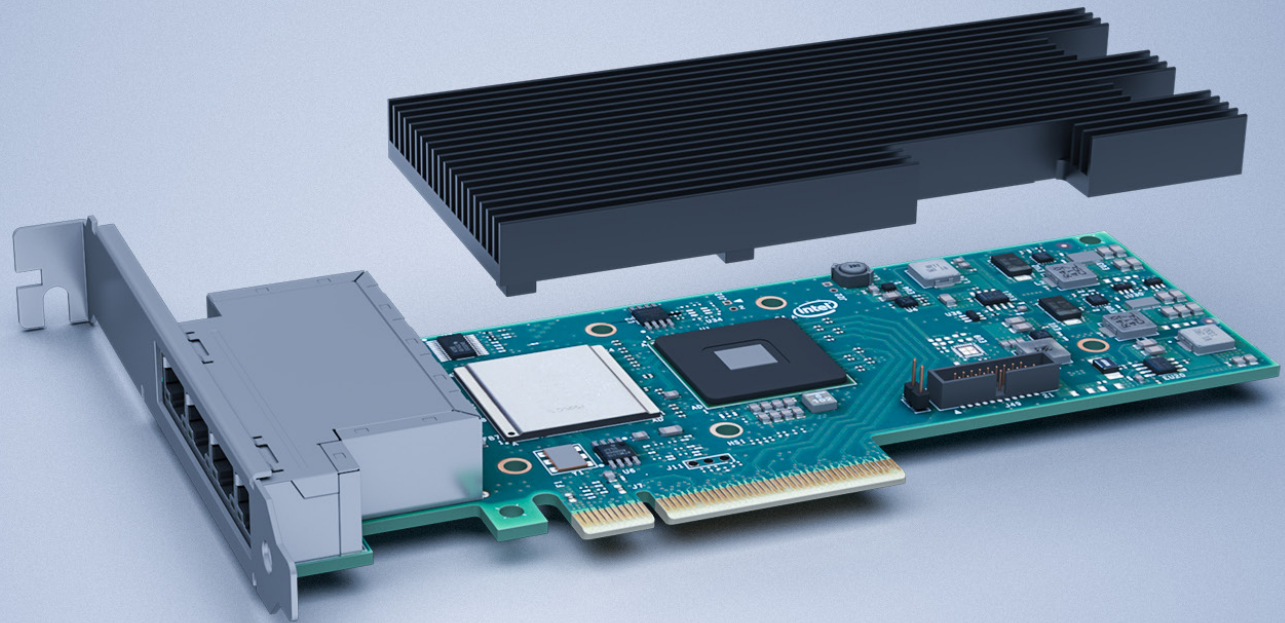
INTEL® ETHERNET CONVERGED NETWORK ADAPTER X710-T4

Intel® Ethernet Converged Network Adapter X710-T4

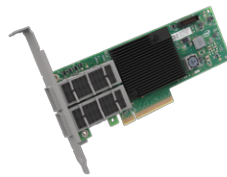
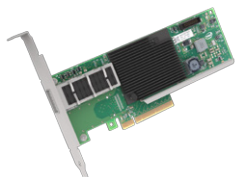
The Intel Ethernet Converged Network Adapter X710 Family addresses demanding data center requirements by providing unmatched features for both server and network virtualization, flexibility for LAN and SAN networks, and reliable performance.

X710-T4 Key Features

- Intel® Ethernet Controller XL710, Intel® X557 (PHY)
- Four 100Mb/1GbE/10GbE Ports
- RJ-45 Copper connector and Cable Medium
- Category-6 up to 55m, Category-6A up to 100m
- Low Profile and Full Height Slot Support
- Network Virtualization Acceleration: VXLAN, NVGRE, Geneve
- Storage over Ethernet: iSCSI, NFS, SMB
- Server Virtualization: On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable
- Optimized for Data Plane Development Kit (DPDK) & Intel® Ethernet Flow Director



INTEL® ETHERNET CONVERGED NETWORK ADAPTERS



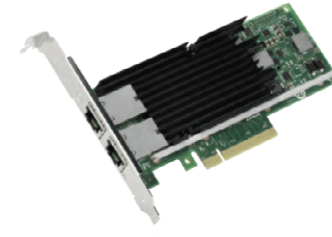
Brand Name Intel® Ethernet Converged Network Adapter XL710-QDA1

Brand Name Intel® Ethernet Converged Network Adapter XL710-QDA2

Brand Name Intel® Ethernet Server Adapter XL710-QDA1 / QDA2 for OCP

Product Code(s)	XL710QDA1, XL710QDA1BLK	XL710QDA2, XL710QDA2BLK	XL710QDA1OCP, XL710QDA2OCP
Intel® Ethernet Controller	Intel® XL710	Intel® XL710	Intel® XL710
Connector & Cable Medium	QSFP+ Direct Attach Copper	QSFP+ Direct Attach Copper	QSFP+ Direct Attach Copper
Cabling Type	QSFP+ Direct Attached Twin Axial Cabling up to 10 m	QSFP+ Direct Attached Twin Axial Cabling up to 10 m	QSFP+ Direct Attached Twin Axial Cabling up to 10 m
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 3.0 8.0 GT/s, x8 Lane	PCI Express* 3.0 8.0 GT/s, x8 Lane	PCI Express* 3.0 8.0 GT/s, x8 Lane
Connection Speed	10GbE / 40GbE	10GbE / 40GbE	10GbE / 40GbE
Ports	Single Port	Dual Port	Single and Dual Port
Supported Slot Height(s)	Low Profile and Full Height	Low Profile and Full Height	OCP Form Factor - no bracket
Intelligent Offloads	Yes	Yes	Yes
Server Virtualization	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable
Network Virtualization Acceleration	VXLAN, NVGRE, Geneve	VXLAN, NVGRE, Geneve	VXLAN, NVGRE, Geneve
Optimized for Data Plane Development Kit (DPDK)¹ & Intel® Ethernet Flow Director	Yes	Yes	Yes
Storage over Ethernet	iSCSI, NFS, SMB	iSCSI, NFS, SMB	iSCSI, NFS, SMB
Accessory Options	Intel® Ethernet QSFP+ Twin Axial Cables Intel® Ethernet QSFP+ Breakout Cables Intel® Ethernet QSFP+ Optics	Intel® Ethernet QSFP+ Twin Axial Cables Intel® Ethernet QSFP+ Breakout Cables Intel® Ethernet QSFP+ Optics	Intel® Ethernet QSFP+ Twin Axial Cables Intel® Ethernet QSFP+ Breakout Cables Intel® Ethernet QSFP+ Optics

¹ More about the Data Plane Development Kit (DPDK) at <http://intel.ly/1nCLdcx>



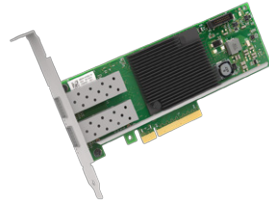
Brand Name Intel® Ethernet Converged Network Adapter X710-T4

Brand Name Intel® Ethernet Converged Network Adapter X550

Brand Name Intel® Ethernet Converged Network Adapter X540

Product Code(s)	X710T4, X710T4BLK	X550T1, X550T1BLK X550T2, X550T2BLK	X540T1, X540T1BLK X540T2, X540T2BLK
Intel® Ethernet Controller	Intel® XL710, Intel® X557 (PHY)	Intel® X550	Intel® X540
Connector & Cable Medium	RJ-45 Copper	RJ-45 Copper	RJ-45 Copper Twisted Pair
Cabling Type	Category-6 up to 55 m, Category-6A up to 100 m	Category-6 up to 55 m Category-6A up to 100 m	Category-6 up to 55 m Category-6A up to 100 m
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 3.0 8.0 GT/s Lane x 8 Lane	PCI Express* 3.0 8.0 GT/s Lane x 4 Lane operable in x8 and x16 slots	PCI Express* 2.1 5.0 GT/s, x8 Lane
Connection Speed	100Mb/1GbE/10GbE	100Mb / 1GbE / 10GbE	100Mb / 1GbE / 10GbE
Ports	Quad Port	Single and Dual Port	Single and Dual Port
Supported Slot Height(s)	Low Profile and Full Height	Low Profile and Full Height	Low Profile and Full Height
Intelligent Offloads	Yes	Yes	Yes
Server Virtualization	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable
Network Virtualization Acceleration	VXLAN, NVGRE, Geneve	VXLAN, NVGRE	VXLAN
Optimized for Data Plane Development Kit (DPDK)¹ & Intel® Ethernet Flow Director	Yes	Yes	Yes
Storage over Ethernet	iSCSI, NFS, SMB	iSCSI, FCoE, NFS, SMB	iSCSI, FCoE, NFS, SMB
Accessory Options	N/A	N/A	N/A

¹ More about the Data Plane Development Kit (DPDK) at <http://intel.ly/1nCLdcx>



Brand Name Intel® Ethernet Converged Network Adapter X710-DA4FH

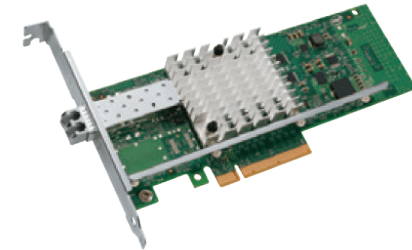
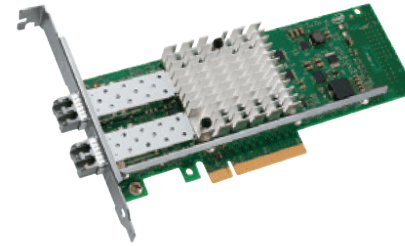
Brand Name Intel® Ethernet Converged Network Adapter X710-DA2

Brand Name Intel® Ethernet Converged Network Adapter X520-DA2

Brand Name Intel® Ethernet Server Adapter X520-DA1 & X520-DA2 for Open Compute Project

Product Code(s)	X710DA4FH, X710DA4FHBLK	X710DA2 X710DA2BLK	E10G42BTDA E10G42BTDABLK	X520DA1OCP X520DA2OCP
Intel® Ethernet Controller	Intel® XL710	Intel® XL710	Intel® 82599ES	Intel® 82599ES
Connector & Cable Medium	SFP+ Direct Attach Copper	SFP+ Direct Attach Copper	SFP+ Direct Attach Copper	SFP+ Direct Attach Copper
Cabling Type	SFP+ Direct Attached Twin Axial Cabling up to 10 m	SFP+ Direct Attached Twin Axial Cabling up to 10 m	SFP+ Direct Attached Twin Axial Cabling up to 10 m	SFP+ Direct Attached Twin Axial Cabling up to 10 m
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 3.0 8.0 GT/s, x8 Lane	PCI Express* 3.0 8.0 GT/s, x8 Lane	PCI Express* 2.0 5.0 GT/s, x8 Lane	PCI Express* 2.0 5.0 GT/s, x8 Lane
Connection Speed	1GbE / 10GbE	1GbE / 10GbE	1GbE / 10GbE	1GbE / 10GbE
Ports	Quad Port	Dual Port	Dual Port	Single and Dual Port
Supported Slot Height(s)	Full Height Only	Low Profile and Full Height	Low Profile and Full Height	OCP Form Factor - no bracket
Intelligent Offloads	Yes	Yes	Yes	Yes
Server Virtualization	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Virtual Machine Device Queues (VMDq), Hypervisor-based Port Partitioning
Network Virtualization Acceleration	VXLAN, NVGRE, Geneve	VXLAN, NVGRE, Geneve	VXLAN	VXLAN
Optimized for Data Plane Development Kit (DPDK)¹ & Intel® Ethernet Flow Director	Yes	Yes	Yes	Yes
Storage over Ethernet	iSCSI, NFS, SMB	iSCSI, NFS, SMB	iSCSI, FCoE, NFS, SMB	iSCSI, NFS, SMB
Accessory Options	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics

¹ More about the Data Plane Development Kit (DPDK) at <http://intel.ly/1nCLdcx>



Brand Name Intel® Ethernet Converged Network Adapter X520-SR1

Brand Name Intel® Ethernet Converged Network Adapter X520-SR2

Brand Name Intel® Ethernet Converged Network Adapter X520-LR1

Product Code(s)	E10G41BFSR E10G41BFSRBLK	E10G42BFSR E10G42BFSRBLK	E10G41BFLR E10G41BFLRBLK
Intel® Ethernet Controller	Intel® 82599ES	Intel® 82599ES	Intel® 82599ES
Connector & Cable Medium	LC Fiber Optic	LC Fiber Optic	LC Fiber Optic
Cabling Type	MMF 62.5/50 µm up to 300 m	MMF 62.5/50 µm up to 300 m	SMF up to 10 km
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 2.0 5.0 GT/s, x8 Lane	PCI Express* 2.0 5.0 GT/s, x8 Lane	PCI Express* 2.0 5.0 GT/s, x8 Lane
Connection Speed	1GbE / 10GbE	1GbE / 10GbE	1GbE / 10GbE
Ports	Single Port	Dual Port	Single Port
Supported Slot Height(s)	Low Profile and Full Height	Low Profile and Full Height	Low Profile and Full Height
Intelligent Offloads	Yes	Yes	Yes
Server Virtualization	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable
Network Virtualization Acceleration	VXLAN	VXLAN	VXLAN
Optimized for Data Plane Development Kit (DPDK)¹ & Intel® Ethernet Flow Director	Yes	Yes	Yes
Storage over Ethernet	iSCSI, FCoE, NFS, SMB	iSCSI, FCoE, NFS, SMB	iSCSI, FCoE, NFS, SMB
Accessory Options	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics Single Port: Ships with Qty 1 E10GSFSPSR	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics Dual Port: Ships with Qty 2 E10GSFSPSR	Intel® Ethernet SFP+ Twin Axial Cables Intel® Ethernet SFP+ Optics Ships with Qty 1 E10GSFPLR

¹ More about the Data Plane Development Kit (DPDK) at <http://intel.ly/1nCLdcx>

INTEL® ETHERNET SERVER ADAPTERS



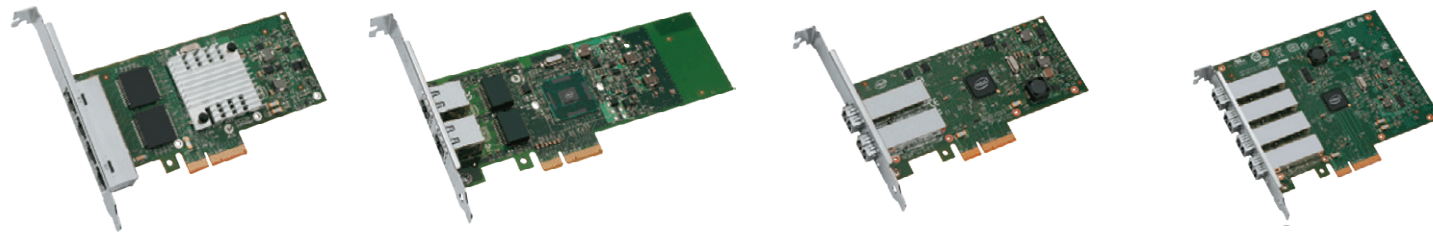
Brand Name Intel® Ethernet Server Adapter I210-T1

Brand Name Intel® Ethernet Server Adapter I350-T4

Brand Name Intel® Ethernet Server Adapter I350-T2

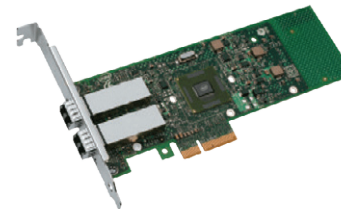
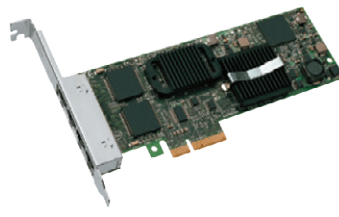
Product Code(s)	I210T1 I210T1BLK	I350T4V2 I350T4V2BLK	I350T2V2 I350T2V2BLK
Intel® Ethernet Controller	Intel® I210	Intel® I350	Intel® I350
Connector & Cable Medium	RJ-45, Copper	RJ-45 Copper	RJ-45 Copper
Cabling Type	Category-5 up to 100 m	Category-5 up to 100 m	Category-5 up to 100 m
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 2.1 5GT/s Lane x 1 Lane	PCI Express* 2.0 5 GT/s Lane x 4 Lane	PCI Express* 2.0 5 GT/s Lane x 4 Lane
Ports	Single Port	Quad Port	Dual Port
Supported Slot Height(s)	Low Profile and Full Height	Low Profile and Full Height	Low Profile and Full Height
Intelligent Offloads	Yes	Yes	Yes
Intel® Virtualization Technology for Connectivity		On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable
Storage over Ethernet	Yes	Yes	Yes
Intel® Ethernet Power Management¹	Yes	Yes	Yes

¹ Intel® Ethernet Power Management includes Energy Efficient Ethernet (EEE) and DMA Coalescing.



Brand Name	Intel® Ethernet Server Adapter I340-T4	Intel® Gigabit ET Dual Port Server Adapter	Intel® Ethernet Server Adapter I350-F2	Intel® Ethernet Server Adapter I350-F4
Product Code(s)	E1G44HT E1G44HTBLK	E1G42ET E1G42ETBLK	I350F2 I350F2BLK	I350F4 I350F4BLK
Intel® Ethernet Controller	Intel® 82580	Intel® 82576	Intel® I350	Intel® I350
Connector & Cable Medium	RJ-45 Copper	RJ-45 Copper	LC Fiber Optic	LC Fiber Optic
Cabling Type	Category-5 up to 100 m	Category-5 up to 100 m	MMF 62.5 um up to 275 m MMF 50 um up to 550 m	MMF 62.5 um up to 275 m MMF 50 um up to 550 m
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 2.0 5 GT/s Lane x 4 Lane	PCI Express* 2.0 2.5 GT/s Lane x 4 Lane	PCI Express* 2.1 5 GT/s Lane x 4 Lane	PCI Express* 2.1 5 GT/s Lane x 4 Lane
Ports	Quad Port	Dual Port	Dual Port	Quad Port
Supported Slot Height(s)	Low Profile and Full Height	Low Profile and Full Height	Low Profile and Full Height	Full Height
Intelligent Offloads	Yes	Yes	Yes	Yes
Intel® Virtualization Technology for Connectivity	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq)	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable
Storage over Ethernet	iSCSI, NFS	iSCSI, NFS	iSCSI, NFS	iSCSI, NFS
Intel® Ethernet Power Management¹	N/A	N/A	N/A	Yes

¹ Intel® Ethernet Power Management includes Energy Efficient Ethernet (EEE) and DMA Coalescing.



Brand Name Intel® Ethernet Server Adapter I340-F4

Intel Gigabit ET2 Quad Port Server Adapter

Intel® Gigabit EF Dual Port Server Adapter

Intel Gigabit CT Desktop Adapter

Product Code(s)	E1G44HF E1G44HFBLK	E1G44ET2 E1G44ET2BLK	E1G42EF E1G42EFBLK	EXPI9301CT EXPI9301CTBLK
Intel® Ethernet Controller	Intel® 82580	Intel® 82576	Intel® 82576	Intel® 82574
Connector & Cable Medium	Fiber Optic	RJ-45 Copper	Fiber Optic	RJ-45 Copper
Cabling Type	MMF 62.5 um up to 275 m MMF 50 um up to 550 m	Category-5 up to 100 m	MMF 62.5 um up to 275 m MMF 50 um up to 550 m	Category-5 up to 100 m
Slot Type, Maximum Bus Speed & Slot Width	PCI Express* 2.0 5 GT/s Lane x 4 Lane	PCI Express* 2.0 2.5 GT/s Lane x 4 Lane	PCI Express* 2.0 2.5 GT/s Lane x 4 Lane	PCI Express* 1.1 2.5 GT/s Lane x 1 Lane
Ports	Quad Port	Quad Port	Dual Port	Single Port
Supported Slot Height(s)	Full Height	Low Profile and Full Height	Low Profile and Full Height	Low Profile and Full Height
Intelligent Offloads	Yes	Yes	Yes	NA
Intel® Virtualization Technology for Connectivity	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq)	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	On-chip QoS and Traffic Management, Flexible Port Partitioning, Virtual Machine Device Queues (VMDq), PCI-SIG* SR-IOV capable	NA
Storage over Ethernet	iSCSI, NFS	iSCSI, NFS	iSCSI, NFS	iSCSI, NFS
Intel® Ethernet Power Management¹	NA	NA	NA	NA

Intel® Ethernet. It Just Works.

For additional product information, visit: intel.com/go/ethernet

¹ Intel® Ethernet Power Management includes Energy Efficient Ethernet (EEE) and DMA Coalescing.

INTEL® ETHERNET OPTICS



Customers require flexible and scalable I/O solutions to meet the rigorous requirements of running mission-critical applications in virtualized and unified storage environments.

These optics are available in both short range (SR) and long range (LR) 1310-nm options. The two range options enable customers to create the configuration that best meets the needs of their data center environment.

To ensure maximum flexibility, Intel supports the ability to mix any combination of Intel® SFP+ SR optics or Intel® SFP+ LR optics, direct attach copper cables, or 10GBASE-T SFP modules, with compatible Intel® Ethernet adapters.

Optic Product Name	Product Code	Form Factor	Data Rate	Power	Reach	Connector
Intel® Ethernet SFP+ SR Optics	E10GSFPSR	SFP+	1 Gb/s, 10 Gb/s	1.0 W	300 m over MMF OM3	LC
Intel® Ethernet SFP+ LR Optics	E10GSFPLR	SFP+	1 Gb/s, 10 Gb/s	1.0 W	10 km over SMF OM3	LC



Intel® Ethernet QSFP+ Optics are available for customers who want to deploy Intel® Ethernet Converged Network Adapters with a QSFP+ optic.

Intel® Ethernet Converged Network Adapters with QSFP+ connectivity deliver proven, reliable solutions for deployments of high density Ethernet for unified 10 GbE and 40 GbE network connections.

Optic Product Name	Product Code	Form Factor	Data Rate	Power	Reach	Connector
Intel® Ethernet QSFP+ SR Optics	E40QSFP SR	QSFP+	40 Gb/s	1.5 W	150 m over MMF OM4	MPO
Intel® Ethernet QSFP+ LR Optics	E40QSFP LR	QSFP+	40 Gb/s	1.5 W	10 km over SMF	MPO

INTEL® ETHERNET SFP+ TWINAXIAL CABLES



Intel® Ethernet SFP+ Twinaxial Cables are ideal for short distances and offer a highly cost-effective way to connect within racks and across adjacent racks. The cables are available in three lengths, enabling customers to create the configuration that best meets the needs of their data center environment.

To ensure maximum flexibility, Intel uniquely supports the ability to mix any combination of SFP+ optical modules, direct attach copper cables, or 1000BASE-T SFP modules on the Intel® Ethernet Converged Network Adapter X520.

Cable Product Name	Product Code	Data Protocol	Cable Length	Left Connector Type	Right Connector Type
Intel® Ethernet SFP+ Twinaxial Cable	XDACBL1M	1 x 10 GbE	1 m	SFP+	SFP+
Intel® Ethernet SFP+ Twinaxial Cable	XDACBL3M	1 x 10 GbE	3 m	SFP+	SFP+
Intel® Ethernet SFP+ Twinaxial Cable	XDACBL5M	1 x 10 GbE	5 m	SFP+	SFP+



INTEL® ETHERNET QSFP+ TWINAXIAL CABLES



Intel offers Intel® Ethernet QSFP+ passive copper cables for customers who would like to deploy Intel® Ethernet Converged Network Adapters with a QSFP+ direct attach cable. Intel Ethernet Converged Network Adapters with QSFP+ connectivity deliver proven, reliable solutions for deployments of high-density Ethernet for unified 10 GbE network connections. These QSFP+ adapters use the latest PCI Express* v3.0 bus technology for maximum bandwidth.

Product Codes

Cable Length	Intel® Ethernet QSFP+ Twinaxial Cables	Intel® Ethernet QSFP+ Breakout Cables
1 Meter	XLDACBL1	X4DACBL1
3 Meters	XLDACBL3	X4DACBL3
5 Meters	XLDACBL5	X4DACBL5

Compatible Intel® Ethernet Converged Network Adapter Product Codes

Configuration	No. of Ports	Single Pack	Bulk 5 Pack
Intel® Ethernet Converged Network Adapter X520-QDA1	1	X520QDA1	
Intel® Ethernet Converged Network Adapter XL710-QDA1	1	XL710QDA1	XL710QDA1BLK
Intel® Ethernet Converged Network Adapter XL710-QDA2	2	XL710QDA2	XL710QDA2BLK

For more information, visit www.intel.com/go/ethernet

All products are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

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INTEL[®] SERVER MANAGEMENT

A man with glasses and a dark hoodie is sitting at a desk in a server room, looking thoughtful with his hand on his chin. In the background, there are server racks and a computer monitor. The lighting is dim, with blue tones from the server room.

INTEL® SERVER MANAGEMENT

Software to build, deploy and manage servers with ease.

GET YOUR SERVERS UP AND RUNNING FAST—AND KEEP THEM RUNNING

Intel® System Management Software is a set of management applications for Intel® Server Products that let you view and control hardware (servers, desktops, and laptops) and software (operating systems, applications, and patches) across your network.

Small- and medium-sized businesses (SMBs) face complex IT challenges similar to those of large enterprises, but often without the large budget or staff of IT specialists. Now businesses can simply, smartly, and scalably manage their server hardware with applications and embedded server management tools.

For more information, visit www.intel.com/go/servermanagement

REMOTE MANAGEMENT – IT MADE EASY

The Intel® Remote Management Module (Intel® RMM) helps you to securely gain access and control servers and other devices from any machine on the network—any place, any time. It is all about IT made easy. With features like a full remote access keyboard, video and mouse (KVM), USB media redirection, remote power actions, proactive system health monitoring, and secure, embedded web server, plus a dedicated network connection it is easy to avoid expensive and messy cabling hardware KVM solutions and lower total server management costs with Intel® Remote Management.

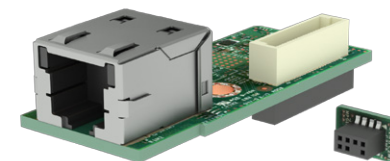
Intel® System Management Software

Intel® System Management Software is a set of management applications comprised of Intel® Active System Console and Intel® SNMP Subagent that let you view and control hardware (servers, desktops, and laptops) and software (operating systems, applications, and patches) across your network. Embedded Intel System Management Software is available in two varieties—an Integrated BMC, which has the full IPMI 2.0 stack available for comprehensive remote (out-of-band) or local (in-band) management, or an Integrated BMC web console available without the requirements for any agents and is always accessible, regardless of the state of the operating system.

FEATURES	INTEL® ACTIVE SYSTEM CONSOLE	INTEL® SNMP SUBAGENT	INTEGRATED BMC	INTEGRATED BMC WEB CONSOLE
Install Requirements	Application: Requires agent install on top of operating system	Application: Requires agent install on top of operating system	Embedded: Nothing to install and always running	Embedded: Nothing to install and always running
Server Environment	Small business, mid-market (One to ten servers)	Enterprise and cloud	Enterprise and cloud	All
User Interface	Web-based (Walkup and remote)	Integrates into SNMP-aware enterprise tools	None (Enables IPMI 2.0 connection)	None (Enables IPMI 2.0 connection)
Operating System Support	Windows*, Linux*	Windows*, Linux*	Firmware (All)	Firmware (All)
Network Configuration	Uses existing operating system network	Uses existing operating system network	Requires additional network configured by BIOS or utilities	Requires additional network configured by BIOS or utilities
Single, Easy-to-Use Console	Yes	No	No	Yes
View Operating System and BIOS Information	Yes	No	Limited BIOS only	Limited BIOS only
Hardware Predictive Failure Analysis	Yes	Yes	Yes	Yes
Sensor Readings	Yes	Yes	Yes	Yes
Hardware Event Log	Yes	No	Yes	Yes
Alerting	Yes (e-mail and SNMP)	Yes (e-mail and SNMP)	Yes (e-mail and SNMP)	Yes (e-mail and SNMP)
Reporting	Yes	No	No	Yes
BMC Configuration	Yes	No	Yes	Yes
Power Management	Yes	No	Yes	Yes
Remote Management	Yes (If operating system is up)	Yes (If operating system is up)	Yes	Yes
Remote Power On/Off/Reboot	No	Yes (If operating system is up)	Yes	Yes
Serial Over LAN (Console Redirection)	No	No	Yes	Yes
OEM Customization	Yes	No	No	Yes

Intel® Remote Management Module

The Intel® Remote Management Module (Intel® RMM) helps you to securely gain access and control servers and other devices from any machine on the network—any place, any time.



MODULE		INTEL® REMOTE MANAGEMENT MODULE 4		
ORDER CODE	AXXRMM4R	AXXRMM4Lite	NEW! AXXRMM4LITE2	
SUPPORTED SYSTEMS¹	Select systems based on Intel® Server Boards S1200V3RPL, S1200V3RPO, S1200V3RPM, S1400FP, S2600GL, S2600GZ, S2600CP, S2600CO, S4600LH	Select systems based on Intel® Server Boards SS1200V3RPL, S1200V3RPO, S1200V3RPM, S1400FP family, S1400SP family, S1600JP family, S2600CO, S2600CP, S2600CW family, S2600GL, S2600GZ, S2600KP family, S2600TP family, S2600WT family, S4600LH	Select systems based on Intel® Server Boards S1200SPL, S1200SPS, S1200SPO	
DEDICATED SERVER MANAGEMENT NIC	Yes	No	No	
EMBEDDED VIDEO / GUI (KVM) REDIRECTION	Yes	Yes	Yes	
USB VIRTUAL MEDIA REDIRECTION	Yes	Yes	Yes	
REMOTE SERVER RESTART	Feature enabled through BMC firmware	Feature enabled through BMC firmware	Feature enabled through BMC firmware	
OEM CUSTOMIZATION	Feature enabled through BMC firmware	Feature enabled through BMC firmware	Feature enabled through BMC firmware	
LDAP, SSH, SSL SUPPORT	Feature enabled through BMC firmware	Feature enabled through BMC firmware	Feature enabled through BMC firmware	
WS-MAN	No	No	No	
EMBEDDED WEB SERVER	Feature enabled through BMC firmware	Feature enabled through BMC firmware	Feature enabled through BMC firmware	
LOCAL AND REMOTE CONFIGURATION	Feature enabled through BMC firmware	Feature enabled through BMC firmware	Feature enabled through BMC firmware	
AGENT-LESS MANAGEMENT	Feature enabled through BMC firmware	Feature enabled through BMC firmware	Feature enabled through BMC firmware	

For more information, visit www.intel.com/go/servermanagement

¹ For the latest Intel® Server Board support, visit <http://support.intel.com/support/motherboards/server>

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

Features and functions of the Intel® Management Packs are dependent on the features and functions available on the server and client hardware and the loaded software and operating systems.

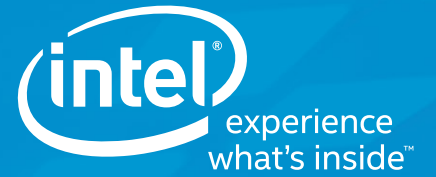
Not all features and functions are available on all products and may require Intel® AMT or IPMI technologies for additional functionality.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/go/servermanagement.

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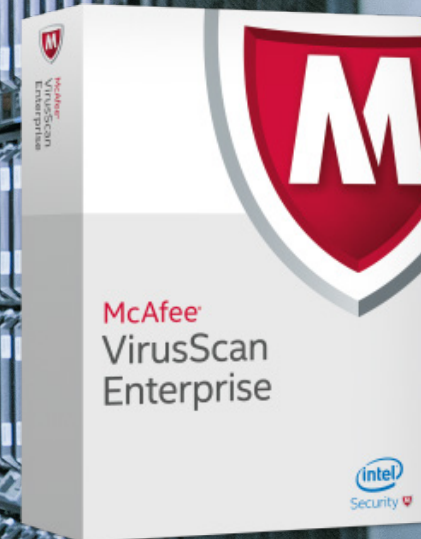


MCAFFEE ANTIVIRUS FOR INTEL[®] SERVER SYSTEMS



MCAFFEE ANTIVIRUS FOR INTEL® SERVER SYSTEMS

Enhanced Protection for Small and Medium Businesses.



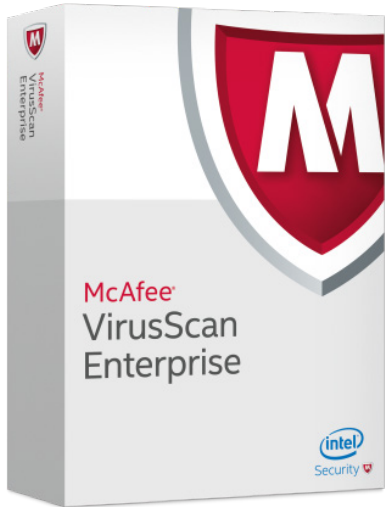
MCAFFEE ANTIVIRUS FOR INTEL® SERVER SYSTEMS

INTEL® SERVER PRODUCTS FOR ENHANCED SECURITY SERVERS

Get comprehensive always-on, real-time anti-malware protection for Intel® Xeon® processor-based servers for Enterprise and Linux* environments. McAfee Antivirus and Intel® Server Systems makes it easy and affordable for small businesses to purchase server security on par with that available for Enterprise. Flexible servers, quality protection. Better together.



MCAfee® ANTIVIRUS FOR INTEL® SERVER SYSTEMS



McAfee® Antivirus for Intel® Server Systems

ENHANCED PROTECTION FOR SMALL AND MEDIUM BUSINESSES

McAfee Antivirus for Intel Server Systems makes easy and affordable for small and medium business (SMB's) server security on par with that available for Enterprise. Now SMB's can help ensure their servers block viruses that target Windows and Linux environments. SMB's can have the flexibility to detect and block malware based on their business needs: on access, on demand, or on a schedule.

- Shield your PC from viruses and online threats
- Optimize your PC's performance
- Wi-Fi and download protection tools

Choose an Intel® Server Product family-based system or board and pair with a McAfee Antivirus subscription to offer increased security in your servers.

Customize Your Solution

MCAfee® ANTIVIRUS SUBSCRIPTION LENGTH

- 1-year
- 1-year renewal
- 3-years
- 3-year renewal

AND

INTEL® SERVER SYSTEM OR BOARD FAMILY OPTION

Intel® Server Product S1200SP Family

1U, single socket, Intel® Xeon® processor E3 v5 family-based systems

–OR–

Intel® Server Product S1200V3RP Family

1U, single socket, Intel® Xeon® processor E3 v3 family-based systems

–OR–

Intel® Server Product S2600WT Family

1U or 2U, dual socket, Intel® Xeon® processor E5 family-based systems

–OR–

Intel® Server Board S2600CW Family

Dual socket Intel® Xeon® processor E5 family-based boards for pedestal chassis



Pair McAfee Antivirus with the following Intel Server Products for a trusted business solution.

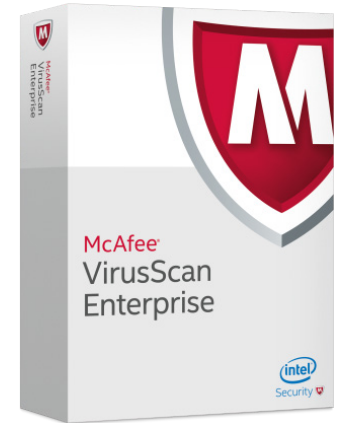
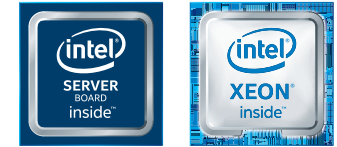
ORDER CODES

MCAfee® ANTIVIRUS SUBSCRIPTION LENGTH

MCAfee® ANTIVIRUS	SUBSCRIPTION LENGTH
1SWMVSE1YR	1-year
SWMAVSERN1YR	1-year renewal
3SWMVSE3YR	3-years
3SWMAVSERN3YR	3-year renewal

INTEL® SERVER BOARD S2600WT-BASED SYSTEM

DESCRIPTION	Manage highly demanding application workloads with 1U and 2U rack systems based on the premier Intel® Server Board W2600WT family featuring power-efficient spread core design, incredible 24 DDR4 DIMMS, and support for dual Intel® Xeon® processors E5-2600 v4.
TARGET MARKET	Enterprise and medium business IT / big data / storage / cloud
	R1208WT2GSR Intel® Server Board S2600WT2R, Dual 1GbE, Single 750W PSU Support for 8x 2.5" drives, 24 DDR4 DIMMs
	R1208WTTGSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 750W PSU Support for 8x 2.5" drives, 24 DDR4 DIMMs
	R1304WT2GSR Intel® Server Board S2600WT2R, Dual 1GbE, Single 750W PSU Support for 4x 3.5" drives, 24 DDR4 DIMMs
	R1304WTTGSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 750W PSU Support for 4x 3.5" drives, 24 DDR4 DIMMs
	R2208WT2YSR Intel® Server Board S2600WT2R, Dual 1GbE, Single 1100W PSU Support for 8x 2.5" drives, 24 DDR4 DIMMs
ORDER CODE	R1208WT2GSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 1100W PSU Support for 8x 2.5" drives, 24 DDR4 DIMMs, passive Intel® Xeon Phi™ co-processor add-in card
	R2208WTTYSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 1100W PSU Support for 8x 2.5" drives, 24 DDR4 DIMMs
	R2224WTTYSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 1100W PSU Support for 24x 2.5" drives, 24 DDR4 DIMMs, 2x 2.5" rear-mount SSDs
	R2308WTTYSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 1100W PSU Support for 8x 3.5" drives, 24 DDR4 DIMMs
	R2312WTTYSR Intel® Server Board S2600WTTR, Dual 10GbE, Single 1100W PSU Support for 12x 3.5" drives, 24 DDR4 DIMMs, 2x 2.5" rear-mount SSDs
SERVER BOARD INCLUDED	S2600WT2R: 1 Gb Ethernet S2600WTTR: 10 Gb Ethernet
PROCESSOR SUPPORT	2 x Intel® Xeon® processors E5-2600 v4/v3 product family
TOTAL PCI SLOTS	3 Riser slots 1 Intel® I/O Module Connector 1 Intel® RAID Module Connector
MEMORY CAPACITY	24 LR / R / DIMMs 1333/ 1600 / 1866 / 2133 / 2400 MHz ECC DDR4 NVDIMMs 2133MHz ² 1.50 TB max using 64 GB DIMMS

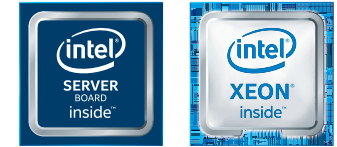


Systems do not include memory, processors, or hard drives.

¹ Maximum memory speed supported depends on the processor used.

² NVDIMM support refer to Intel® Server Configurator Tool (<https://serverconfigurator.intel.com>).

Pair McAfee Antivirus with the following Intel Server Products for a trusted business solution.



INTEL® SERVER BOARD S2600CW-BASED SYSTEM

DESCRIPTION	A family of flexible general purpose server boards supporting two Intel® Xeon® processor E5- 2600 v3 family up to 145 W and 16 DIMMs in a standard SSI EEB form factor. Board variations available for two 1 Gb or 10 Gb Ethernet ports, as well as options for an 8-port SAS controller.
TARGET MARKET	Purpose-built appliance (embedded) / small- and medium-sized businesses / storage / cloud.
ORDER CODE	DBS2600CW2R Dual 1 Gb Ethernet ports
	DBS2600CWTR Dual 10 Gb Ethernet ports
	DBS2600CW2SR Dual 1 Gb Ethernet ports, 8-port LSI* 3008 SAS controller
	DBS2600CWTSR Dual 10 Gb Ethernet ports, 8-port LSI 3008 SAS controller
FORM FACTOR	SSI EEB (12" x 13")
PROCESSOR SUPPORT	2 Intel Xeon processors E5-2600 v4/v3 product family
TOTAL PCI SLOTS	6
MEMORY CAPACITY	16 LR / U / R / NVDIMMs 1333/ 1600 / 1866 / 2133 / 2400 MHz ECC DDR4 ¹ NVDIMMs 2133MHz ² 1 TB max using 64 GB DIMMs
INTEL® SERVER CHASSIS	Intel® Server Chassis P4000G family

INTEL® SERVER BOARD S1200SP-BASED SYSTEM

DESCRIPTION	Flexible and feature-rich entry-level server systems with management options to expand deployment opportunities with server reliability, availability, and servicability at budget-friendly prices.
TARGET MARKET	Small and medium businesses, entry storage
ORDER CODE	R1208SPOSHOR Intel® Server Board S1200SPO, 8 x 2.5" hot-swap HDD, 2 x 450W AC PSU
	R1304SPOSHBN Intel® Server Board S1200SPO, 4 x 3.5" hot-swap HDD, 1 x 350W AC PSU
	R1304SPOSHOR Intel® Server Board S1200SPO, 4 x 3.5" hot-swap HDD, 2 x 450W AC PSU
SERVER BOARD INCLUDED	3-year renewal
PROCESSOR SUPPORT	1 x Intel® Xeon® processor E3-1200 v5 product family
TOTAL PCI SLOTS	1
MEMORY CAPACITY	4 x DDR4 UDIMMs up to 2133 ECC 64 GB max

Pair McAfee Antivirus with the following Intel Server Products for a trusted business solution.

INTEL® SERVER BOARD S1200V3RP-BASED SYSTEM

DESCRIPTION	Entry Server systems with management options expand deployment opportunities with low price point and basic server features.
TARGET MARKET	First server.
ORDER CODE	R1208RPMSHOR Intel® Server Board S1200v3RPM, 8 x 2.5" hot-swap HDD, 2 x 450W AC PSU
	R1304RPMSHOR Intel® Server Board S1200v3RPM, 4 x 3.5" hot-swap HDD, 2 x 450W AC PSU
	R1304RPOSHBN Intel® Server Board S1200v3RPO, 4 x 3.5" hot-swap HDD, 1 x 350W AC PSU
	R1304RPSSFBN Intel® Server Board S1200v3RPS, 4 x 3.5" fixed HDD, 1 x 350W AC PSU
SERVER BOARD INCLUDED	S1200RPS: Lowest cost with basic server features S1200RPO: Rack optimized to support IOM and Storage Modules
PROCESSOR SUPPORT	1 x Intel® Xeon® processor E3-1200 v4 product family
TOTAL PCI SLOTS	4
MEMORY CAPACITY	4 x DDR3 UDIMMs 1333 / 1600 ECC 32 GB max

Systems do not include memory, processors, or hard drives.

¹ Maximum memory speed supported depends on the processor used.

² NVDIMM support refer to Intel® Server Configurator Tool (<https://serverconfigurator.intel.com>).

For more information, visit www.intelserveredge.com/mcafeeaccessory

For the latest Intel® Server Board support, visit <http://support.intel.com/support/motherboards/server>

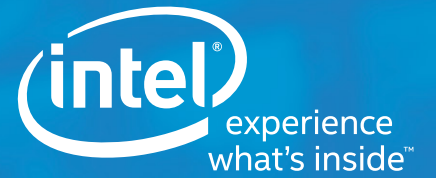
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For more complete information about performance and benchmark results, visit www.intel.com/benchmarks

Features and functions of the Intel® Management Packs are dependent on the features and functions available on the server and client hardware and the loaded software and operating systems. Not all features and functions are available on all products and may require Intel® AMT or IPMI technologies for additional functionality. Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at www.intel.com/go/servermanagement. Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and/or other countries.

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INTEL® OMNI-PATH ARCHITECTURE

INTEL® OMNI-PATH ARCHITECTURE

Intel® Omni-Path Architecture

THE HIGH PERFORMANCE, LOW COST FABRIC FOR HPC. INTEL® OMNI-PATH ARCHITECTURE.

Imagine you could achieve supercomputing-class performance for your HPC fabric, while reducing your infrastructure requirements by as much as 50 percent.¹

You could use the money you saved to expand your cluster, potentially delivering up to 24 percent more compute power to your scientists and engineers.²

That's the transformative power of Intel® Omni-Path Architecture, a foundational component of the Intel® Scalable System Framework. This end-to-end fabric solution provides 100 Gbps port bandwidth with low latency that stays low even at extreme scale.

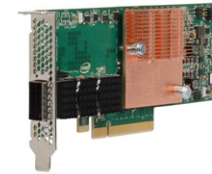
With cost-effective scaling from desk-side clusters to exascale supercomputers, Intel Omni-Path Architecture offers world-class fabric solutions for every level of HPC.

For more information, visit www.intel.com/omnipath



100GB Host Interfaces

Designed specifically for HPC, the Intel® Omni-Path Host Fabric Interface (Intel® OP HFI) uses an advanced connectionless design that delivers performance that scales with high node and core counts, making it the ideal choice for the most demanding application environments. Intel OP HFI supports 100 Gbps per port, which means each Intel OP HFI port can deliver up to 25 GBps per port of bidirectional bandwidth. The same ASIC utilized in the Intel OP HFI will also be integrated into future Intel® Xeon® processors and used in third-party products.



100GB HOST INTERFACES

INTEL PART #	100HFA018LS 100HFA018FS	100HFA016LS 100HFA016FS
DESCRIPTION	Single-port PCIe x8 Adapter, Low Profile and Std Height	Single-port PCIe x16 Adapter, Low Profile and Std Height
SPEED	58 Gbps	100 Gbps
PORTS, MEDIA	Single port, QSFP28	Single port, QSFP28
FORM FACTOR	Low profile PCIe Std Height PCIe	Low profile PCIe Std Height PCIe
FEATURES	Passive thermal – QSFP heatsink, supports up to Class 4 max optical transceivers	Passive thermal – QSFP heatsink, supports up to Class 4 max optical transceivers
SANDY BRIDGE	None	None
IVY BRIDGE	None	None
INTEL® XEON® PROCESSOR E5-2600 V3 (HASWELL-EP)	✓	✓
INTEL® XEON® PROCESSOR E5-2600 V4 (BROADWELL-EP)	✓	✓

Edge Switches

The next generation of high performance computing (HPC) fabrics use Intel® Omni-Path Architecture to create fabrics that meet the needs of the most demanding set of applications. The Intel® Omni-Path Edge Switch consists of two models supporting 100 Gb/s for all ports, an entry-level 24-port switch for small clusters and a 48-port switch. The larger switch, in addition to enabling a 48-port fabric in 1U, can be combined with other edge switches and directors to build much larger multitier fabrics. These Intel Omni-Path Edge Switches are members of the Intel® Omni-Path Fabric 100 series of switches, host adapters, and software delivering an exceptional set of high-speed networking features and functions.



100GB HOST INTERFACES

	100SWE48UF2 / R2 (2 Power Supplies) 100SWE48QF2 / R2 (2 Power Supplies) 100SWE48UF1 / R1 (1 Power Supply) 100SWE48QF1 / R1 (1 Power Supply)	100SWE24UF2 / R2 (2 Power Supplies) 100SWE24QF2 / R2 (2 Power Supplies) 100SWE24UF1 / R1 (1 Power Supply) 100SWE24QF1 / R1 (1 Power Supply)
INTEL PART #		
DESCRIPTION	48 Port Edge Switch ("Q" = mgmt card)	24 Port Edge Switch ("Q" = mgmt card)
SPEED	100 Gbps	100 Gbps
MAX EXTERNAL PORTS	48	24
MEDIA	QSFP28	QSFP28
FORM FACTOR	1U	1U
FEATURES	Forward / reverse airflow and mgmt card options, up to 2 PSU	Forward / reverse airflow and mgmt card options, up to 2 PSU

Director Switches

The Intel® Omni-Path Director Class Switch (Intel® OP Director Class Switch), based on Intel's next generation 48-radix switch silicon, has many innovative features that provide optimum performance for both small and large fabrics. Both switch models are dense form factor designs capable of supporting up to 768 100 Gb/s ports in a low 20U footprint. Designed to be modular alongside edge switches, host adapters, and software, the Intel OP Director Class Switch 100 series enables customers to tailor their system configuration to meet present and future needs.



DIRECTOR SWITCHES

INTEL PART #	100SWD24B1N 100SWD24B1D 100SWD24B1A	100SWD06B1N 100SWD06B1D 100SWD06B1A	100SWDLF32Q	100SWDSPINE	100SWDMGTSH
DESCRIPTION	24-slot Director Class Switch, Base Config	6-slot Director Class Switch, Base Config	Director Class Switch Leaf Module	Director Class Switch Spine Module	Director Class Switch Management Module
SPEED	100 Gbps	100 Gbps	100 Gbps	100 Gbps	100 Gbps
MAX EXTERNAL PORTS	768	192	32	N/A	N/A
MEDIA	10/100/1000 Base-T USB Gen2	10/100/1000 Base-T USB Gen2	QSFP28	Internal high speed connections	10/100/1000 Base-T USB Gen2
FORM FACTOR	20U	7U	Half-width module 2 modules per leaf	Full width module, 2 boards/module	Half-width module
FEATURES	Up to 2 mgmt modules, up to 12 PSUs, AC and DC options	Up to 2 mgmt modules, up to 6 PSUs, AC and DC options	Hot swappable	96 internal mid-plane connections, hot swappable	N+1 redundancy, hot swappable

Intel® Omni-Path Cables

Intel® Omni-Path Fabric solutions support a broad array of 3rd party cable types and lengths from the industry's leading providers. These cables, together with the Intel® OPA Packet Integrity Protection feature, provide highly reliable communication links with superior bit error rate (BER) performance.

PASSIVE COPPER CABLES

CABLE LENGTH	INTEL® OMNI-PATH PASSIVE COPPER CABLES
0.5M	100CQQF3005; 100CQQH3005 (30 AWG)
1.0M	100CQQF3010; 100CQQH3010 (30 AWG)
1.5M	100CQQH2615 (26 AWG)
2.0M	100CQQH2620 (26AWG)
3.0M	100CQQH2630 (26AWG)

ACTIVE OPTICAL CABLES

CABLE LENGTH	INTEL® OMNI-PATH ACTIVE FIBRE CABLES
3.0M	100FRRF0030
5.0M	100FRRF0050
10M	100FRRF0100
15M	100FRRF0150
20M	100FRRF0200
30M	100FRRF0300
50M	100FRRF0500
100M	100FRRF1000

For more information, visit www.intel.com/omnipath

FOOTNOTES

- ¹ Reduction of infrastructure requirements claim based on a 1024-node full bisectional bandwidth (FBB) Fat-Tree configuration, using a 48-port switch for Intel Omni-Path cluster and 36-port switch ASIC for either Mellanox or Intel® True Scale clusters.
- ² Configuration assumes a 750-node cluster, and number of switch chips required is based on a full bisectional bandwidth (FBB) Fat-Tree configuration. Intel® OPA uses one fully-populated 768-port director switch, and Mellanox EDR solution uses a combination of 648-port director switches and 36-port edge switches. Intel and Mellanox component pricing from www.kernelsoftware.com, with prices as of October 20, 2016. Assumes \$6,200 for a 2-socket Intel® Xeon® processor based compute node.

Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark* and MobileMark,* are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to <http://www.intel.com/performance>

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can provide absolute security.

Cost reduction scenarios described are intended as examples of how a given Intel-based product, in the specified circumstances and configurations, may affect future costs and provide cost savings. Circumstances will vary. Intel does not guarantee any costs or cost reduction.

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