(intel®)

Intel® HD Graphics P630

Processor-based graphics for workstations.

Powered by Intel® Xeon® processors.

Integrated onto the die of the Intel® Xeon® processor E3-1200 v6 and Intel® Xeon® processor E3-1500M v6 product families, Intel® HD graphics P630 delivers previously out-of-reach entry-level workstation performance and visuals to designers, engineers, and media creators. Designed to support today's professional graphics and imagery applications, like Adobe Photoshop,* Autodesk AutoCAD,* Autodesk Inventor,* Autodesk Revit,* Dassault SOLIDWORKS,* Siemens PLM NX,* and other similar software, Intel® HD graphics P630 offers performance that can compete with entry-level, discrete professional graphics cards.

Intel® Xeon® processors with Intel® HD graphics P630 are built on Intel's 14nm process using 3D Tri-Gate transistors. The advanced processors are offered for entry-level workstations used by professional designers, engineers, and media creators with demanding graphics requirements.

Intel® HD graphics P630 technology offers improvements in both 2D and 3D graphics performance, with support for Microsoft DirectX* 12.1, OpenGL*

4.4, and OpenCL* 2.0. Integrated into the silicon, Intel® Quick Sync Video technology improves the transcoding speed of previous versions of the technology and now supports up to 4K display resolution.

Intel® HD Graphics P630 offers:

Optimized performance

With optimized performance for a range of common workstation and Computer Aided Design (CAD) applications, Intel® HD graphics P630 provides designers, engineers, and media creators with entry-level workstation performance and visuals. With built-in graphics capabilities, designers may no longer need a discrete graphics card for some of the most commonly used workloads.

Certification

More than 15 of the most-used workstation and CAD applications are certified on Intel® HD graphics P630. These applications help ensure compatibility for the software's features. Learn more about Certified Applications.

Reliability

Intel® Xeon® processors support Error Correcting Code (ECC) memory, enhancing workstation reliability. ECC memory catches and corrects single-bit errors on-the-fly to keep applications running reliably and accurately. Learn more about ECC Memory.
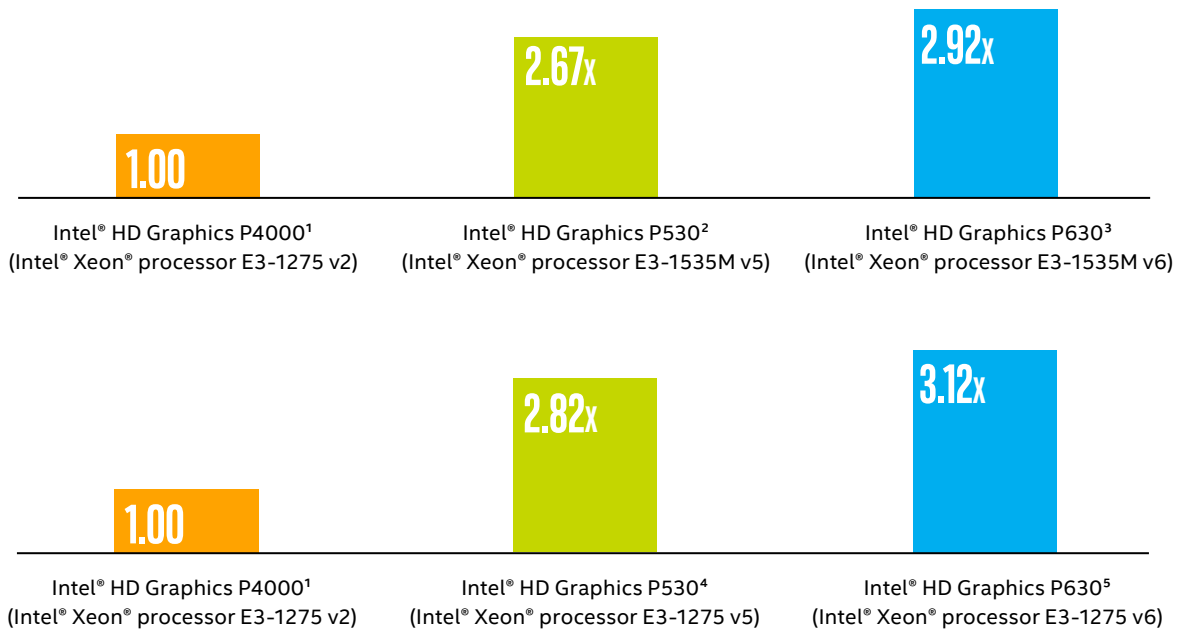
Form factors

Intel® HD graphics P630 packs workstation performance into a wide range of form factors from expandable pedestals to portable laptops.

INTEL® HD GRAPHICS P630 DELIVERS UP TO 3X GRAPHICS PERFORMANCE

Graphics Performance
Geometric mean of all components of SPECviewperf* 12
Intel® HD Graphics P630
Relative Generational Performance Gains
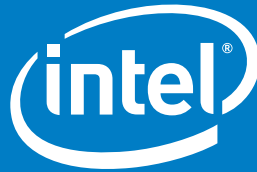
SPECviewperf* 12 Geometric Mean (Select Components)

1.00	**2.67x**	**2.92x**
Intel® HD Graphics P4000[1] (Intel® Xeon® processor E3-1275 v2)	Intel® HD Graphics P530[2] (Intel® Xeon® processor E3-1535M v5)	Intel® HD Graphics P630[3] (Intel® Xeon® processor E3-1535M v6)

1.00	**2.82x**	**3.12x**
Intel® HD Graphics P4000[1] (Intel® Xeon® processor E3-1275 v2)	Intel® HD Graphics P530[4] (Intel® Xeon® processor E3-1275 v5)	Intel® HD Graphics P630[5] (Intel® Xeon® processor E3-1275 v6)

FEATURE	IMPACT AND BENEFIT
Intel® HD Graphics	Processor-based graphics, certified for leading applications from Adobe, Autodesk, Bentley, Dassault, PTC, and Siemens.
Intel® Quick Sync Video	Delivers fast video editing and authoring along with fast video conversion. Added support for HEVC and VP9 10-bit video compression standards.
Intel® Clear Video HD	Visual quality and color fidelity enhancements for HD playback.
Intel® Pro Wireless Display	Beam your content to an HDTV with a simple wireless connection.
Intel® Turbo Boost Technology 2.0	Dynamically increases the processor's frequency, as needed, by taking advantage of thermal and power headroom when operating below specified limits.
Integrated Memory Controller	Offers stunning memory read/write performance through efficient prefetching algorithms, low latency, and high memory bandwidth.

FEATURE	INTEL® XEON® PROCESSOR E3-1200 V6 PRODUCT FAMILY	INTEL® XEON® PROCESSOR E3-1500M V6 PRODUCT FAMILY	7TH GEN INTEL® CORE™ i7 PROCESSOR	7TH GEN INTEL® CORE™ i5 PROCESSOR	7TH GEN INTEL® CORE™ i3 PROCESSOR
Cache Size	8 MB	8 MB	8 MB	6 MB	3 MB
TDP	Up to 73 W	Up to 45 W	Up to 65 W	Up to 65 W	Up to 60 W
Maximum Core Count	4	4	4	4	2
Intel® Hyper-Threading Technology	Yes	Yes	Yes	Yes	Yes
Intel® vPro™ Technology	Yes	Yes	Yes	Yes	No
Intel® Turbo Boost Technology	Yes	Yes	Yes	Yes	No
Intel® HD Graphics	P630	P630	630	630	630
Max Number of 4K Displays	3	3	3	3	3
Professional CAD/Imaging/DCC Application Certifications	Certified on 15 applications from Adobe, Autodesk, Bentley, Dassault, PTC, and Siemens	Certified on 15 applications from Adobe, Autodesk, Bentley, Dassault, PTC, and Siemens	No	No	No

For more information, visit:

http://www.intel.com/workstations

Benchmark information for workstation graphics performance

Graphics Performance: Geometric mean of all components of SPECviewperf* 12. SPECviewperf* 12 is a benchmark from the SPEC consortium that measures OpenGL performance by rendering a dataset for a pre-specified amount of time.

Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors.

[1] Intel® Xeon® Processor E3-1275 v2 SPECviewperf* 12 configuration detail. Carlow based platform, BIOS ACRVMBY1.86C.0096.P0009/09/2012, Intel® Xeon® E3-1275 v2 77W TDP, 4C8T, 3.5GHz turbo up to 3.9GHz, 8MB Cache, Intel® HD Graphics P4000; Memory: 8GB (2x4GB) DDR3-1600 ECC UDIMM; Storage: WD2000FYYZ; Display resolution: 1920x1080. Graphics Driver: 8.15.10.2712; OS: Microsoft Windows* 7 SP1 64 Bit. HT Enabled, Turbo on.

[2] Intel® Xeon® E3-1535M V5 Based System: Intel Reference Platform, Intel® Xeon® E3-1535M 45W TDP, 4C8T, Turbo up to 3.8GHz/2.9GHz, Intel HD 530 Graphics, Memory: 2x4GB DDR4-2133, Storage: Intel SSD, Display Resolution: 1920x1080, Graphics driver: 15.40.4281, OS: Windows 10 Professional Build 10240 x64.

[3] Intel® Xeon® E3-1535M V6 System Configurations: Intel® Xeon® E3- 1535M processor-based system: Intel Reference Platform, Intel® Xeon™ E3-1535M 45W TDP, 4C8T, Turbo up to 4.2GHz/3.1GHz, Memory: 2x4GB DDR4-2400, Storage: Intel SSD, Display Resolution:1920x1080. Graphics driver: 21.20.16.4577, OS: Windows® 10 Professional build 14971 x64.

[4] Intel Xeon processor E3-1275 v5 @ 3.6GHz Processor Base on Intel® Server Board S1200SPL , GPU Intel® HD Graphics P530, Graphics driver: 21.20.16.4550, Memory 32 GB (4 x 8GB DDR4-2400MHz ECC UDIMM) running at 2133MHz, Storage Intel SSD 530 Series 480GB, Operating System Windows 10 Pro 64 Bit, Display Resolution 1920x1080, BIOS: S1200SP.86B.02.01.0037.101720160816.

[5] Intel Xeon processor E3-1275 v6 @ 3.80GHz Processor Base on Intel® Server Board S1200SPL , GPU Intel® HD Graphics P630, Graphics driver: 21.20.16.4550, Memory 32 GB (4 x 8GB DDR4-2400 MHz ECC UDIMM), Storage Intel SSD 530 Series 480GB, Operating System Windows 10 Pro 64 Bit, Display Resolution 1920x1080, BIOS: S1200SP.86B.02.01.0037.101720160816.

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.