

USING TRADITIONAL DESKTOP PCS AS WITH DEMANDING WORKSTATION APPLICATIONS CAN INTRODUCE RISKS AND IMPACT REVENUE

SALES BRIEF

WAIT TIMES

SYSTEM CRASHES
& ERRORS

LIMITED IO

INCOMPATIBLE
SOFTWARE

LONG WAIT TIMES

Media rendering or complex fluids simulations takes time to complete and will prevent professional creators from moving on to the next job

ERRORS & CRASHES

Uncaught memory errors in high compute or simulations environment can cause system hangs and crashes at the worst possible times, compromising productivity

LIMITED EXPANDABILITY

Professional power users, such as PC gaming developers, need to run multiple graphics cards, storage devices and network controllers with unconstrained IO Performance to the CPU

INCOMPATIBLE SOFTWARE

Professional AEC and M&E applications require platform certification for guaranteed performance and support

RESOLVING THE PAIN POINTS WITH WORKSTATIONS POWERED BY NEW INTEL® XEON® E PROCESSORS

SALES BRIEF



Intel® Xeon® E Processors deliver professional-grade performance with the built-in platform security features and reliability that professional creators demand.



INCREASED CORE & THREAD COUNTS

NO WAITING

NO CRASHES & ERRORS

INCREASED MEMORY SPEED & CAPACITY W/ ECC

ENHANCED IO

SUPPORT FOR PCIE* 3.0 WITH INTEL® OPTANE™

COMPATIBLE SOFTWARE

MORE THAN 12 CERTIFIED APPLICATIONS w/ INTEL® UHD GRAPHICS P630⁶

UP TO 34% FASTER¹
VS. 3-YR. OLD WORKSTATION

In Product Development

UP TO 62% FASTER²
VS. 3-YR. OLD WORKSTATION

In Digital Content Creation

UP TO 87% BETTER³
VS. 3-YR. OLD WORKSTATION

In Multi-Threaded, Integer Operation Performance

UP TO 49% FASTER⁴
VS. 3-YR. OLD WORKSTATION

In Life Science Modeling & Simulations

UP TO 35% FASTER⁵
VS. 3-YR. OLD WORKSTATION

In General Workstation Applications

Performance results are based on testing as of May 5th, 2019 and may not reflect all publicly available security updates. See configuration disclosure for details. No product can be absolutely secure. For more complete information about performance and benchmark results, visit <http://www.Intel.com/benchmarks>



NEW INTEL® XEON® E PROCESSOR

SELECTION GUIDE

SALES BRIEF



	Intel® Xeon® E-2276M	Intel® Xeon® E-2286M	Intel® Xeon® E-2224	Intel® Xeon® E-2234	Intel® Xeon® E-2236	Intel® Xeon® E-2224G	Intel® Xeon® E-2226G	Intel® Xeon® E-2244G	Intel® Xeon® E-2246G	Intel® Xeon® E-2274G	Intel® Xeon® E-2276G	Intel® Xeon® E-2286G	Intel® Xeon® E-2278G	Intel® Xeon® E-2288G	
	Mobile Workstation Sku		Stationary Workstation Sku												
Cores / Threads	6/12	8/16	4/4	4/4	6/6	4/4	4/4	4/8	6/12	4/8	6/12	6/12	8/16	8/16	
Max Turbo Frequency	4.7 GHz	4.8 GHz	4.6 GHz	4.8 GHz	4.8 GHz	4.7 GHz	4.7 GHz	4.8GHz	4.8 GHz	4.9 GHz	4.9 GHz	4.9 GHz	5.0 GHz	5.0 GHz	
Intel® Smart Cache	12 MB	16 MB	8 MB	8 MB	12 MB	8 MB	12 MB	8 MB	12 MB	8 MB	12 MB	12 MB	16 MB	16 MB	
Total Dynamic Power (TDP)	45 W	45 W	71 W	71 W	80 W	71 W	80W	71W	80W	83W	80W	95W	80W	95W	
Intel® UHD Graphics P630	Yes		No					Yes							
Intel® Hyper Thread Technology	Yes		No						Yes						
Intel® Technologies	Intel® vPro™ Technology, Intel® Optane® Technology, Reliability Accessibility and Serviceability (RAS)														
Memory	2 channels of up to 128GB DDR4 @ 2666Mhz with ECC or non-ECC														
Platform PCIe* 3.0 Lanes	Up to 40 lanes														

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

DISCLAIMERS, SOURCES AND CONFIGURATIONS

Performance results are based on testing as of May 5th, 2019 and may not reflect all publicly available security updates. See configuration disclosure for details. No product can be absolutely secure.

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 complete information about performance and benchmark results, visit <http://www.intel.com/benchmarks>

1. As estimated by SPEC_workstation™ 3 Product Development sub score comparing Intel® Xeon® E-2288G vs. Intel® Xeon® E3-1275v5. Test done by Intel as of 5/5/2019.
2. As estimated by SPEC_workstation™ 3 Media & Entertainment sub score comparing Intel® Xeon® E-2288G vs. Intel® Xeon® E3-1275v5. Test done by Intel as of 5/5/2019.
3. As measured by SPECrate*2017_int_base (n copy) comparing Intel® Xeon® E-2288G vs. Intel® Xeon® E3-1275v5. Test done by Intel as of 5/5/2019.
4. As estimated by SPEC_workstation™ 3 Life Sciences sub score comparing Intel® Xeon® E-2288G vs. Intel® Xeon® E3-1275v5. Test done by Intel as of 5/5/2019.
5. As estimated by SPEC_workstation™ 3 General Operations sub score comparing Intel® Xeon® E-2288G vs. Intel® Xeon® E3-1275v5. Test done by Intel as of 5/5/2019.
6. There are a wide range of Workstation/CAD apps that will be certified. Certification results will be available shortly after production drivers are available. Certifications are targeted within two quarters of the new Intel® Xeon® E platform launch. For a list of certified apps on production products, please visit: intel.com/content/www/us/en/workstations/certified-applications.html.

Configurations:

Testing done by Intel as of 5/5/2019:

SPEC CPU*2017 & SPEC_workstation™ 3 measured/estimated on platforms with:

- Intel® Xeon® E3-1275v5 , PL1=80W TDP, 4C8T, Turbo up to 4.0GHz, Intel® HD Graphics P530, Platform: CFL, Motherboard: P10S-M WS, Motherboard Type: Production, Graphics: N/A, Memory: 2x16GB DDR4 – 2400MHz, Storage: Intel M2 SSD 760p 512GB, OS: Microsoft Windows* 10 RS5 Build Version 1809 (437), BIOS: 4401
- Intel® Xeon® E-2288G , PL1= 95W TDP, 8C16T, Turbo up to 5.0GHz, Intel® UHD Graphics P630, Platform: CFL, Motherboard: ASUS WS C246 PRO, Motherboard Type: Production, Graphics: N/A, Memory: 2x16GB DDR4-2666MHz, Storage: Intel M2 SSD 760p 512GB, OS: Microsoft Windows* 10 RS5 Build Version 1809 (437), BIOS: 17

Benchmark and Workload Descriptions:

- **SPEC CPU*2017** is published by the Standard Performance Evaluation Corporation (SPEC), a benchmarking consortium. SPEC CPU tests Compute Intensive Application Performance using integer and floating point subtests based on real programs. SPECspeed*2017_int_base and SPECspeed2017_fp_base measure how fast a processor completes a single integer or floating point compute task. SPECrate*2017_int_base and SPECrate2017_fp_base measure throughput, or how many integer or floating point compute tasks a processor can accomplish in a given amount of time. For Windows*, SPEC CPU2017 supports Win64.
- **SPEC_workstation™ 3** is published by the Standard Performance Evaluation Corporation (SPEC), a benchmarking consortium. SPEC_workstation™ 3 measures Workstation Application Performance using workloads addressing the following workstation markets: Media and Entertainment - 3D Modeling, Video Transcoding, Ray Tracing and CAD using Blender, HandBrake, LuxRender, Autodesk Maya and 3ds Max; Product Development - heterogeneous computing and CAD/CFD using Rodinia Suite, OpenFOAM, CalculiX, Dassault Systèmes Catia, PTC Creo, Siemens NX, Dassault Systèmes SolidWorks and Autodesk Showcase; Life Sciences – Molecular Dynamics Simulation using LAMMPS, NAMD, Rodinia Suite and Medical Imaging; Financial Services - Financial Modeling using Black-Scholes and Monte Carlo simulations; Energy (Oil & Gas) - Seismic Data Processing and Imaging; General Operations - including 7-Zip, Python scripting and Octave programming; GPU Compute - OpenCL and GPU Compute - CUDA. A CPU, Graphics and Storage scores are also produced. The Rodinia Suite includes workloads for: Data Mining, Bioinformatics, Physics Simulation, Pattern Recognition, Image Processing, Medical Imaging, Graph Algorithms and Web Mining. For Windows*, SPEC Workstation 3 supports Win64.