

Benchmark	Workload Description	8th Generation Desktop Intel® Core i7 8700K Processor	8th Generation Mobile Intel® Core™ i7-8650U Processor	7th Generation Mobile Intel® Core™ i7 7920HQ Processor	6th Generation Desktop Intel® Core™ i7 6700K Processor		
CPU Code Name		Coffee Lake	Kaby Lake	Kaby Lake	Skylake	Skylake	Skylake
OS		Windows 10	Windows 10	Windows 10	Windows 10	Windows 7	Windows 7
Storage		SSD	SSD	SSD	SSD	SSD	HDD
Introduction Date		Q4'17	Q3'17	Q1'17	Q3'15	Q3'15	Q3'15
Relative Performance (Fully Mitigated System / Non Mitigated System at 100%)							
SYSmark 2014 SE Overall	Windows Application-based Office Productivity, Data/Financial Analysis and Media Creation.	94%	95%	93%	92%	94%	100%
SYSmark 2014 SE Office Productivity		95%	95%	95%	90%	93%	96%
SYSmark 2014 SE Media Creation		96%	97%	96%	96%	97%	97%
SYSmark 2014 SE Data/Finance Analysis		97%	98%	98%	103%	99%	106%
SYSmark 2014 SE Responsiveness		88%	86%	86%	79%	89%	101%
PCMark 10 - Overall	Windows application based benchmark covering essentials, content creation and productivity	96%	96%	97%	96%	96%	96%
PCMark 10 - Essentials		96%	96%	97%	96%	93%	95%
PCMark 10 - Productivity		96%	94%	95%	94%	97%	97%
PCMark 10 - Digital Content Creation		98%	98%	98%	99%	97%	97%
3DMark Sky Diver - Overall	DX11 Gaming performance	100%	99%	100%	101%	100%	100%
3DMark Sky Diver - Graphics		100%	99%	100%	101%	100%	100%
3DMark Sky Diver - Physics		99%	98%	100%	99%	97%	99%
3DMark Sky Diver - Combined		100%	99%	100%	101%	100%	101%
WebXPRT 2015 Notw: Windows 10 on Edge Browser Windows 7 on IE Browser	Web applications using six usage scenarios: Photo Enhancement, Organize Album, Stock Option Pricing, Local Notes, Sales Graphs, Explore DNA Sequencing.	92%	90%	93%	90%	95%	92%

Source: Intel

Note: The data above is based on multiple runs and expected system benchmark variation is assumed to be +/- 3%

The benchmark results reported above may need to be revised as additional testing is conducted. The results depend on the specific platform configurations and workloads utilized in the testing, and may not be applicable to any particular user's components, computer system or workloads. The results are not necessarily representative of other benchmarks and other benchmark results may show greater or lesser impact from mitigations.

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 about benchmarks and performance test results, go to www.intel.com/benchmarks.

KBL-R U 4+2 Configuration:

Processor: Intel® Core™ i7-8650U Processor (KBL-R U 4+2) PL1=15W TDP, 4C8T, Turbo up to 4.2GHz **Memory:** 2x4GB DDR4-2400 1Rx8 Samsung M471A5143EB1

Storage: Intel® 600p m.2 NVMe SSD **Display Resolution:** 1920x1080 **OS:** Windows* 10 Build RS3 16299.15. Power policy set to AC/High Perf for all benchmarks **Graphics driver:** 15.60.4901_whql

RST: 15.9.1.1018_pv-Rffix

CFL-S 6+2 95W Configuration:

Processor: Intel® Core™ i7-8700K Processor (CFL-S 6+2), PL1=95W TDP, 6C12T, Turbo up to 4.7GHz **Memory:** 2x8GB DDR4-2666 2Rx4 HyperX HX426C15FBK2/16 **Storage:** Intel® 600p M.2 NVMe

SSD **Display Resolution:** 1920x1080 **OS:** Windows 10 Build RS3 16299.15. Power policy set to AC/HighPerf for all benchmarks **Graphics driver:** 15.60.4877_Whql, **RST:** 15.9.1.1018_pv-Rffix

KBL-H 4+2 45W Configuration:

Processor: Intel® Core™ i7-7920HQ Processor (KBL-H 4+2), PL1=45W TDP, 4C8T, Turbo up to 4.1GHz **Memory:** 2x4GB DDR4-2400 1Rx8 Samsung M471A5143EB1 **Storage:** Intel® 600p M.2 NVMe SSD

Display Resolution: 1920x1080 **OS:** Windows 10 Build RS3 16299.15. Power policy set to AC/HighPerf for all benchmarks **Graphics driver:** 15.60.4877_Whql, **RST:** 15.9.1.1018_pv-Rffix

SKL-S 4+2 91W Configuration:

Processor: Intel® Core™ i7-6700K Processor (SKL-S 4+2), PL1=91W TDP, 4C8T, Turbo up to 4.2GHz **Memory:** 2x8GB DDR4-2400 [running at 2133] 2Rx8 G.Skill Ripjaws F4-2400C15D-16GVR **Storage:**

Intel® 600p M.2 NVMe SSD **Display Resolution:** 1900x1200 **OS:** Windows 10 Build RS3 16299.15. Power policy set to AC/HighPerf for all benchmarks **Graphics driver:** 10.18.15.4256, **RST:** 14.6.0.1029

SKL-S 4+2 91W Configuration:

Processor: Intel® Core™ i7-6700K Processor (SKL-S 4+2), PL1=91W TDP, 4C8T, Turbo up to 4.2GHz **Memory:** 2x8GB DDR4-2400 [running at 2133] 2Rx8 G.Skill Ripjaws F4-2400C15D-16GVR **Storage:**

Intel® 540s Series 240GB SATA SSD **Display Resolution:** 190x1200 **OS:** Windows 7 Build 7601 Service Pack 1. Power policy set to AC/HighPerf for all benchmarks **Graphics driver:** 10.18.15.4256, **RST:**

14.6.0.1029

SKL-S 4+2 91W Configuration:

Processor: Intel® Core™ i7-6700K Processor (SKL-S 4+2), PL1=91W TDP, 4C8T, Turbo up to 4.2GHz **Memory:** 2x8GB DDR4-2400 [running at 2133] 2Rx8 G.Skill Ripjaws F4-2400C15D-16GVR **Storage:**

Western Digital Black Edition 1TB 7200RPM SATA HDD WD1003FZEX **Display Resolution:** 1900x1200 **OS:** Windows 7 Build 7601 Service Pack 1. Power policy set to AC/HighPerf for all benchmarks

Graphics driver: 10.18.15.4256, **RST:** 14.6.0.1029