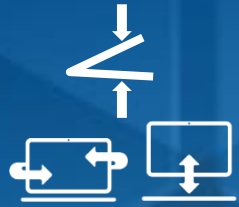




7TH GEN INTEL® CORE™ & INTEL® XEON® PROCESSOR BRIEFING



WHAT WE TALKED ABOUT IN AUGUST '16



New Processors and Designs

New processors from 4.5W-15W

Amazing 2 in 1 computers and ultrathin laptops for consumer and small business

>100 designs in Q4'16



Performance Leadership

Work, multitask, create

1.7X¹ – 15X² faster



Bringing 4K UHD Mainstream

“All Day 4K” battery life (9.5hr)³

Premium 4K UHD content on your computer



Feature Rich

120+ Thunderbolt™ 3

100+ Windows® Hello

50+ 4K UHD

25+ Pen designs

1. As Measured by SYSmark* 2014 Overall Score (Intel® Core™ i5-7200U vs. Intel® Core™ i5-2467M)
2. As Measured by MAGIX Fastcut Video Create Workload(Intel® Core™ i5-7200U vs. Intel® Core™ i5-2467M)
3. Based on 4K HEVC 10-bit local video playback on Intel® Core™ i7-7500U at 66Whr battery and 4K panel

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>

WINDOWS* 10 RUNS BEST ON THE LATEST INTEL CORE PROCESSORS

Performance + Responsiveness

Intel® Speed Shift
Technology
Modern Standby*
Intel Optane memory



User Experiences

Windows* Hello
Cortana*
Intel® Smart Sound
Technology



Gaming + Entertainment

PlayReady 3.0*
Xbox* Play Anywhere
HEVC 10-bit & VP9
Decode/Encode



Productivity

Intel® Core™ vPro™
Thunderbolt™ 3
Microsoft* Office
Windows* Ink



Security

Intel® Secure Key
Intel® Authenticate
Device Guard*
Windows* Hello for
Business



Manageability

Intel® Core™ vPro™
Technology
Intel® Active
Management
Technology



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



DEVELOPING THE FUTURE TOGETHER



MIXED REALITY & GAMING



FROM LTE TO 5G



“Hey, Cortana”



Intel Authenticate

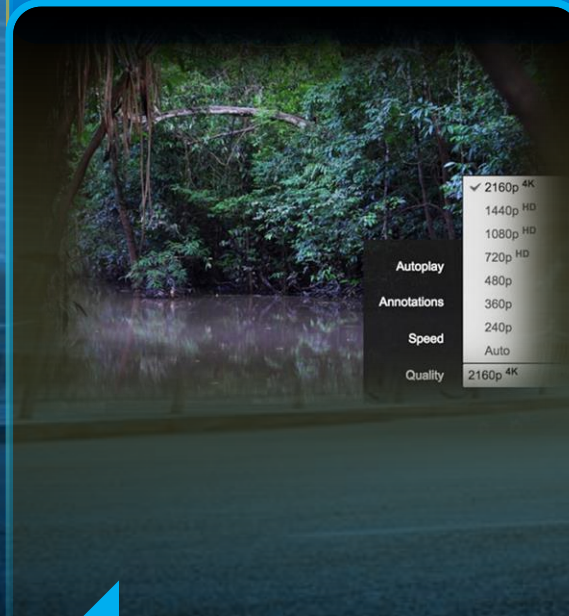
1. No computer system can be absolutely secure

WELCOME TO THE IMMERSIVE INTERNET

7th Gen Intel® Core™ processors bring the immersive internet to life on PCs, from thin and light 2 in 1 computers to powerful desktop PCs and All-in-One computers

STUNNING • SENSORY • ACTIVE • ENGAGING

4K UHD



ESPORTS



VR



360° VIDEO



PC IS TRANSFORMING THE IMMERSIVE INTERNET EXPERIENCE

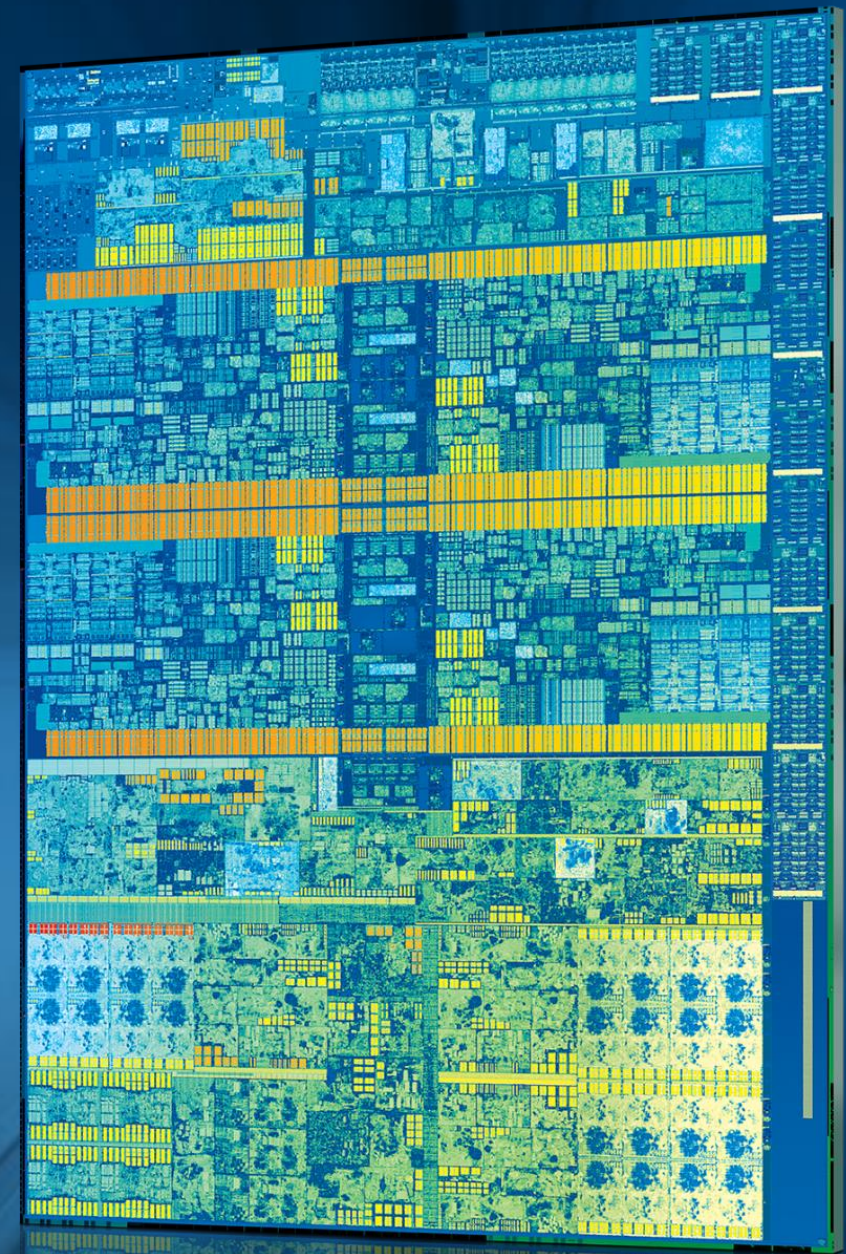
NEW PROCESSORS POWERING HIGH PERFORMANCE COMPUTING

INTEL® CORE™ & INTEL® XEON® PROCESSORS

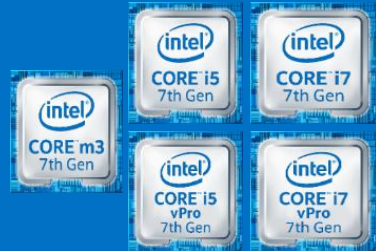
LAUNCHING JANUARY 3RD

- 7th Gen Intel® Core™ processors from 4.5W-91W
- 7th Gen processors with Intel® Iris™ Plus graphics
- Processors with Intel® vPro™ technology
- Intel® Xeon® processors for mobile workstations

- Consumers: enthusiast laptops and desktops, minis, and All-in-One computers
- Business: 2 in 1 computers, ultrathin laptops, mobile workstations, desktops, minis, and All-in-One computers



BROAD RANGE OF DESIGNS



Y-SERIES

2 in 1
Detachables,
and Compute
Stick



U-SERIES

Thin and Light
Laptops, 2 in 1
Computers,
Convertibles,
and Minis



S-SERIES

Desktop
Performance
to Value, All-in-
One Computers
and Minis



Consumer and Business

GET THE GRAPHICS PERFORMANCE YOU EXPECT WITH INTEL® IRIS™ PLUS GRAPHICS



Game

Better 3D graphics performance

~65% BETTER¹

vs. Intel® HD graphics



Create

Better Quick Sync Video

~40% BETTER²

vs. Intel® HD graphics



Entertain

Enjoy premium content

4K

DELIVERS PERFORMANCE FOR TODAY'S CREATORS

1. As Estimated (e) by 3DMark* Sky Diver Graphics Score (Intel® Core™ i7-7500U vs. Intel® Core™ i7-7567U)

2. As Estimated (e) by TouchXPRT* 2014 Convert Video Subtest (Intel® Core™ i7-7500U vs. Intel® Core™ i7-7567U)

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7TH GEN INTEL CORE H-SERIES PROCESSOR FAMILY



Productivity

Double digit productivity improvement

UP TO 20% BETTER¹



Create

Quickly and effortlessly create, stitch, and share 4K 360 videos

UP TO 65% FASTER²



Game

Unleash the performance to game and stream simultaneously in real time

OVERWATCH/TWITCH

AMAZING PERFORMANCE IN A MOBILE FORM FACTOR

1. As Measured by SYSmark* 2014 (Intel® Core™ i7-7700HQ vs. Intel® Core™ i7-4700HQ)
2. As Measured by 4K 360 Kolor Autopano Workload (Intel® Core™ i7-7700HQ vs. Intel® Core™ i7-4700HQ)

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7TH GEN INTEL® CORE™ S-SERIES PROCESSORS

FANTASTIC PERFORMANCE WITH UNLOCKED³ PROCESSORS



What's New

Intel® Core™ i3-7350K
Intel® 200 Series Chipset
Intel® Optane™ memory
Intel® Authenticate
general availability



Productivity

Double-digit
performance
gain

25% BETTER¹



Create

Create, stitch,
and share 4K
360 videos

35% FASTER²

LEAPS IN PERFORMANCE COMPARED TO 3-YR-OLD COMPUTER

3. Altering clock frequency and/or voltage may cause damage to or reduce the useful life of the processor and other system components and/or reduce system stability and performance. Product warranties may not apply if the processor is operated beyond its specifications. Check with manufacturers of other system components for warranty and additional details. For more information, visit: <http://www.intel.com/content/www/us/en/gaming/overclocking-intel-processors.html>

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1. As Measured by SYSmark* 2014 (Intel® Core™ i7-7700K vs. Intel® Core™ i7-4770K)
2. As Measured by Adobe Premier Pro Workload (Intel® Core™ i7-7700K vs. Intel® Core™ i7-4770K)



GETTING READY FOR INTEL'S REVOLUTIONARY MEMORY

INTEL® OPTANE™ MEMORY READY



Intel® Optane™ Memory



Snappy Responsiveness

Snappy PC experience with short boot times and fast application launches

System Acceleration

Accelerate day-to-day tasks

High Speed and HDD Capacity

Pair Intel® Optane™ memory with an HDD for SSD-like speed and HDD capacity



Intel® Optane™ Memory Ready



For partners and customers to promote desktop motherboards and systems equipped with M.2 connector that supports addition of Intel Optane memory purchased aftermarket

OVERCLOCKING CAPABILITIES ENTHUSIAST USAGES

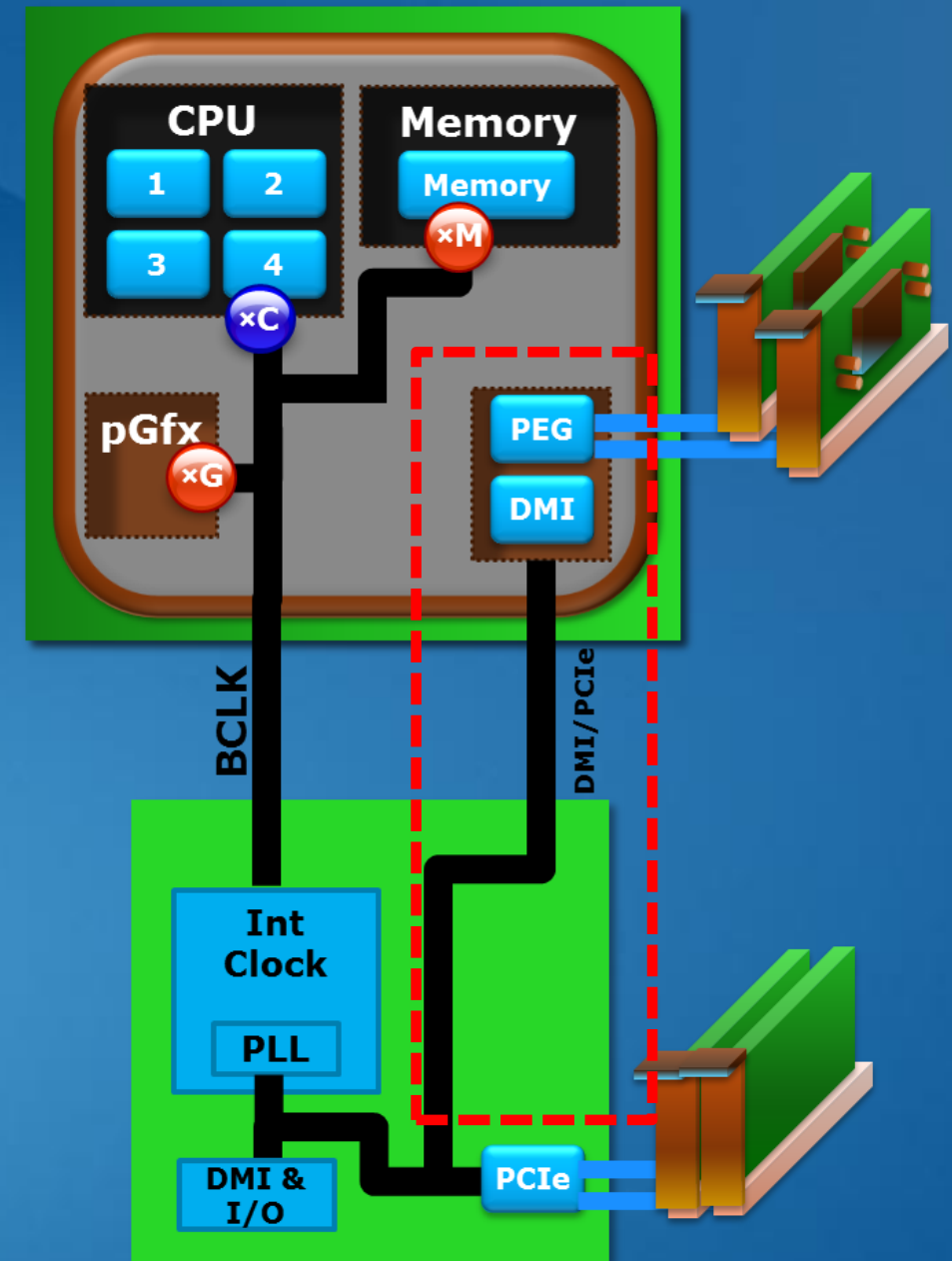
7th Gen Intel Core processors overclock to higher levels than previous generations

B Clock Aware Voltage/Freq Curve

Optimized voltage
Improve overclocking stability and reliability
Simplified overclocking voltage control

AVX Offset Ratio

More stable overclocking
Higher OC non-AVX2 frequency



INTEL® CORE™ PROCESSORS POWER THE GAMING EXPERIENCE

GAMING FOR ALL TYPES OF CONSUMERS AND EXPERIENCES FROM THE CASUAL ON-THE-GO TO PROFESSIONAL PLAYER



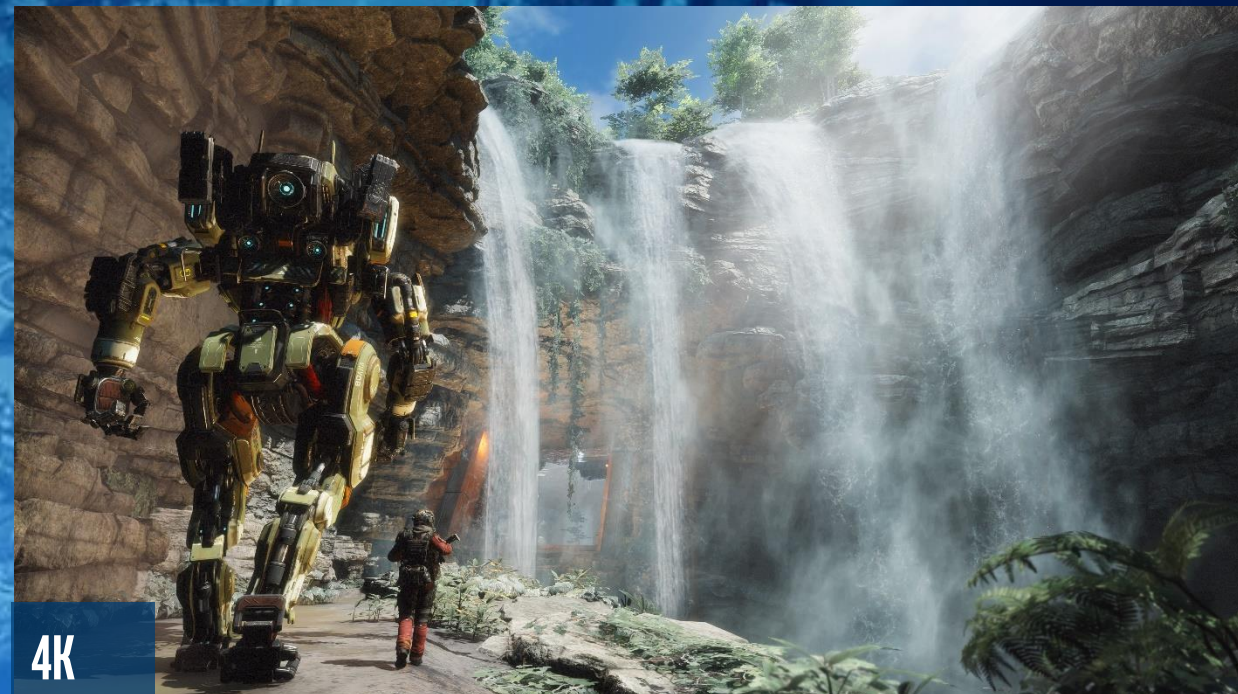
720P

U series with
HD graphics



1080P

U series with
Iris Plus graphics



4K

H/S series with Discrete Graphics



BRINGING REALITY TO VIRTUAL REALITY



Dynamic Environmental & Particle Effects



Object Persistence



Increased particle Physics



Enhanced Global Illumination



INTEL® OPTANE™ TECHNOLOGY



VIEW 4K PREMIUM CONTENT ON 7TH GEN INTEL® CORE™ PROCESSORS

Enjoy the best 4K premium content on 7th Gen Intel® Core™ processors at home or on the go

NETFLIX

Netflix* 4K UHD premium content is available on 7th Gen Intel Core based systems. People will be able to enjoy 4K UHD TV shows and movies such as *The Crown* and *Stranger Things* on their computer at home or on the go.

AVAILABLE NOW

ULTRA™ 4K MOVIES & TV

ULTRA, powered by SonyPicturesStore.com, is a premium streaming service with 4K UHD movies and TV shows from Sony Pictures, available with select 7th Gen Intel Core processor based computers in 2017.

COMING SOON IN 2017

FANDANGONOW

FandangoNOW* offers more than 40,000 new release and catalog movies, next-day TV shows, and an extensive library of 4K and HDR titles, to buy or rent -- no subscription required. FandangoNOW* will be available on 7th Gen Intel Core processor based computers in 2017.

COMING SOON IN 2017

iQIYI 爱奇艺

iQIYI*, China's largest online video services provider, plans to release premium 4K UHD content on 7th Gen Intel Core processor based computers in 2017. It will be available to tens of millions of iQIYI's paid subscribers in the form of movies, TV series, variety shows and cartoons.

COMING SOON IN 2017

PROTECTION¹ BUILT-IN TO THE SILICON

Designed to provide consumers with built-in security¹ features like convenience of logging into your computer with Windows* Hello and extending the simple and secure¹ login throughout your browsing session with hardened password managers, and hassle-free secure¹ payments

Fingerprint Touch to Pay & Secure¹ Guest Checkout

Greater confidence for low-risk transactions, secure¹ payments with the touch of a finger



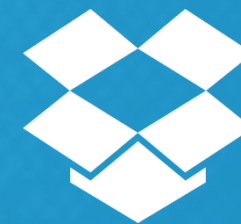
Hardened Password Managers

Sensitive authentication data is captured, encrypted, matched and stored in hardware



Built-in 2-Factor Authentication

Simple built-in two-factor authentication for Dropbox and other industry leading online services



Intel[®] Software Guard Extensions and Intel[®] Online Connect

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. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at [intel.com].

BROADEST RANGE OF BUSINESS DESIGNS

Record 7th Gen Intel® Core™ vPro™ processor-based designs



90% of businesses run on computers powered by Intel¹

>100 vPro designs across form factors



1. Source: Internal studies by Mercury Research, Inc. – PC processors and chip sets, Updated version 1Q2016; and IDC – WW Quarterly PC Tracker, 2016Q2 Historical Release

AS WORKPLACE HAS TRANSFORMED SO HAVE THREATS

90% of incidents result from exploits in software⁴



>60%

Breaches involving identity¹



\$5-15.6M

Cost per breach¹



\$2.9B

2015 damage to business & brand²



\$6T




Cybercrime damage by 2021³

1 Verizon 2015 Data Breach Report
2 ITRC 2015 Data Breach Survey
3 Cybersecurity venture
4 US Department of Homeland Security

ANNOUNCING INTEL® AUTHENTICATE GENERAL AVAILABILITY

Industry's first hardware-enhanced multifactor authentication solution

HARDENED

BIOMETRICS	SECURE ¹ PIN	PROXIMITY	AMT LOCATION												
	<table border="1"><tr><td>1</td><td>2</td><td>3</td></tr><tr><td>4</td><td>5</td><td>6</td></tr><tr><td>7</td><td>8</td><td>9</td></tr><tr><td></td><td>0</td><td><X></td></tr></table> <p>done cancel</p>	1	2	3	4	5	6	7	8	9		0	<X>		
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NEW GENERATION OF PERFORMANCE & INNOVATION

7TH GEN INTEL[®] CORE[™] PROCESSORS

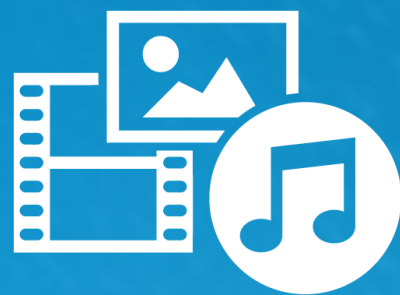
Intel's Newest Platforms

Innovation to drive exciting experiences, capabilities and form factors

Performance and Responsiveness



Fantastic Entertainment



Virtual Reality Experience



Fluid and Vivid Gaming



Content Creation



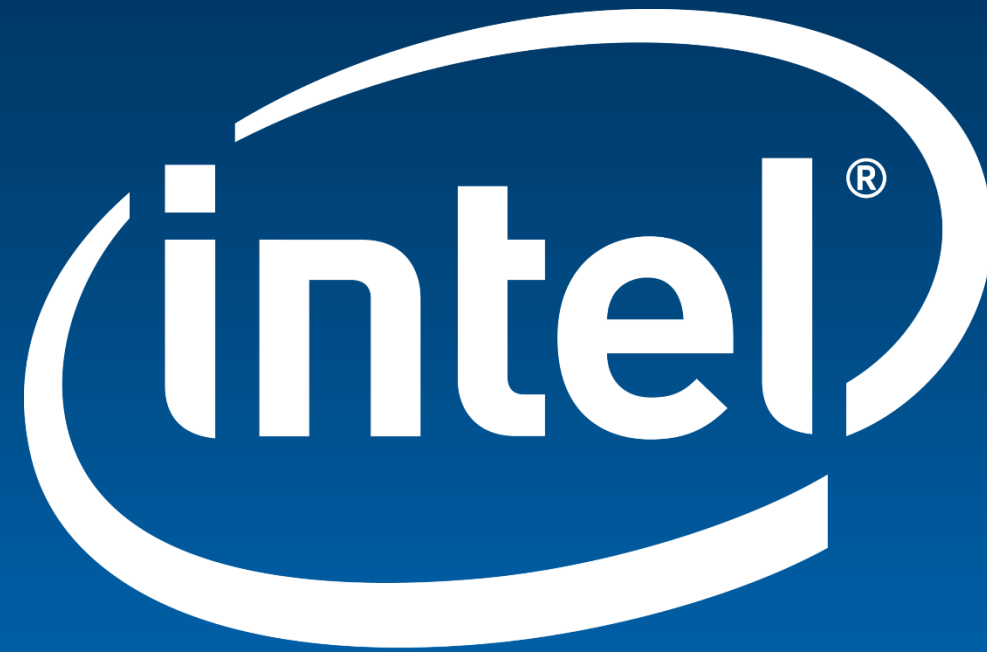
Security¹



Better together with Windows* 10

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1. No computer system can be absolutely secure



experience
what's inside™

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

(for data marked '(e)'): Results have been estimated or simulated using internal Intel analysis or architecture simulation or modeling, and provided to you for informational purposes. Any differences in your system hardware, software or configuration may affect your actual performance.

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Intel is a sponsor and member of the BenchmarkXPRT Development Community, and was the major developer of the XPRT family of benchmarks. Principled Technologies is the publisher of the XPRT family of benchmarks. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases.

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SYSTEM CONFIGURATIONS

Battery life and performance measurements on Intel Reference Platform unless otherwise noted

Intel Reference Platform is an example new system. Products available from systems manufacturers will not be identical in design, and performance will vary.

System power management policy: DC balanced for battery life measurements, AC balanced for performance measurements on 2nd Generation system and AC High Performance on 7th and 6th Generation systems. Wireless: On and connected.

7th Generation Measurements:

- Intel® CRB, Intel® Core™ i5-7200U Processor, PL1=15W TDP, 2C4T, Turbo up to 3.1GHz, Memory: 2x4GB DDR4-2133, Storage: Intel SSD, Display Resolution:1920x1080. Intel HD, Graphics 620, OS: Windows* 10 TH2
- Intel® Core™ i7-7500U Processor, PL1=15W TDP, 2C4T, Turbo up to 3.5GHz, Memory: 2x4GB DDR4-2133, Storage: Intel SSD, Display Resolution: 1920x1080, Intel HD Graphics 620, OS: Windows* 10 TH2
- Intel® Core™ i7-7567U Processor, PL1=28W TDP, 2C4T, Turbo up to 4GHz, Memory: 2x4GB DDR4-2133, Storage: Intel SSD, OS: Windows* 10 Build 1607
- Intel® Core™ i7-7700HQ Processor, PL1=45W TDP, 4C8T, Turbo up to 3.8GHz, measured on: MSI* Dominator Pro GT73VR, Graphics: NVIDIA* GeForce GTX 1070, Memory: 16GB Kingston DDR4-2400, Storage: 256GB Samsung* SSD, Display Resolution:1920x1080 17", OS: Windows* 10 RS1
- Intel® Core™ i7-7700K Processor, PL1=91W TDP, 4C8T, Turbo up to 4.5GHz, Motherboard: ASUS* Z270, Graphics: NVIDIA* GTX 1080, Memory: 2x8GB LPDDR4-2400, Storage: Intel SSD, OS: Windows* 10 Build 1607

Refresh Comparison Measurements:

- Intel® Core™ i5-2467M Processor (1.6 GHz base, up to 2.3GHz 2C4T, 17W TDP) measured on Dell* XPS13-40002sLV 13" Ultrabook, RAM: 4GB DDR3, Storage: 128GB SSD, Display: 13.3" 1366x768 resolution, Battery: 46WHr, OS: Windows* 7
- Intel® Core™ i7-4700HQ Processor, PL1=47W TDP, 4C8T, Turbo up to 3.4GHz, measured on: ASUS* G750JZA, Graphics: NVIDIA* GTX 880M, Memory: 2x4GB LPDDR3-1600, Storage: 256GB Sandisk* SSD, Display Resolution:1920x1080 17", OS: Windows* 10 RS1
- Intel® Core™ i7-4770K Processor, PL1=84W TDP, 4C8T, Turbo up to 3.9GHz, Motherboard: H97, Graphics: NVIDIA* GTX 1080, Memory: 2x8GB, DDR3-1600, Storage: Intel SSD, OS: Windows* 10 Build 1607

4K UHD HEVC 10-bit Battery Life

- Intel® CRB, Intel® Core™ i7-7500U Processor, PL1=15W TDP, 2C4T, Turbo up to 3.5GHz, Memory: 2x4GB DDR4-2133, Storage: Intel SSD, Display Resolution: 4K, Intel HD Graphics 620, OS: Windows* 10 TH2, Battery: 66WHr

WORKLOAD DESCRIPTIONS

SYSmark* 2014 is a benchmark from the BAPCo* consortium that measures the performance of Windows* platforms. SYSmark tests three usage scenarios: Office Productivity, Media Creation and Data/Financial Analysis. SYSmark contains real applications from Independent Software Vendors such as Microsoft* and Adobe*. Reported metrics: SYSmark 2014 Rating and a rating for each scenario result (higher is better for all). Scaling efficiencies: CPU dominant, sensitive to frequency, core count and memory. QSV enabled.

Windows 10* 4K 24fps 10bit HEVC Local Video Playback Component Average Power Disconnect all USB devices, connect to a local WiFi access point and set the screen brightness to 200 nits (disable DPST, set brightness to 200 nits on a white background and enable DPST). Wait for 10 mins for the OS to completely idle. Launch Tears of Steel (4K H265 24fps) video using the Windows Movie & TV App. Measure and calculate average power for the duration of the video. Report 3 run median.

MAGIX Fastcut Video Create Workload: Using MAGIX* Fastcut - The workload video is a 9min 21sec, 3840x2106, ~59.9Mbps, 30fps, H.264, 3.89GB, .mp4 file. The "A Cold Place" template is applied and is exported using the UHD setting. The output video is a 38s, 3840x2160, ~59Mbps, H.264, .mp4 file.

4K 360 Kolor Autopano Workload: The workload consists of six 30 second videos. All of them have the following specs: 106MB, 1920 x 1440, 30Mbps, 47.952fps, H.264, .mp4 container. The output file is a 4096 x 2048, 30 fps, H.264, .mp4 container 360° video file.

Adobe Premiere Pro CC 2015.1 Workload: The project contains seven clips totaling 2 minute and 21 seconds of 4K H.264 MP4 footage recorded at a bitrate of approximately 80 Mbps. The input file sizes total 1.90 GB. The video stream is 3840x2160 (4K) in H.264 format with a framerate of 29.97 FPS. The audio stream is 1536 Kbps, 48.0 KHz, 16 bit Stereo in WAV format. The performance test measures the time to export the entire clip to a 4K H.264 MP4 format. The output is a high quality 4K video file.