2nd Generation Intel® Core™ Processor Family Press Briefing

December 2010

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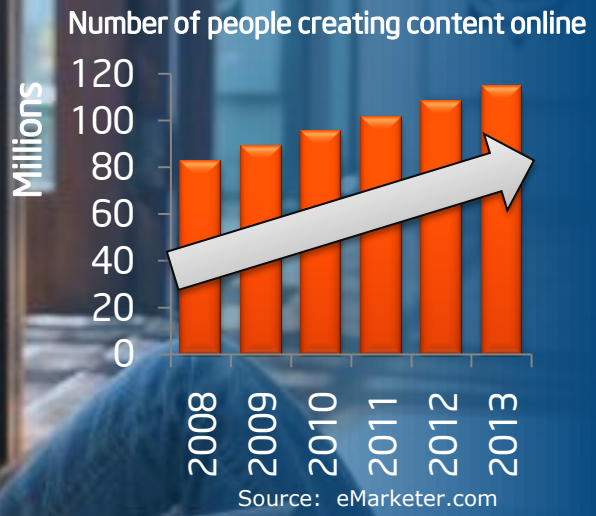
- Intel® Wireless Display requires a compatible Intel-based laptop PC, a third party TV adapter featuring Intel® Wireless Display, and a TV with an available HDMI or Composite AV input. Compatible laptop PCs require a select 2010 Intel® Core™ Processor Family CPU. For a complete list of requirements, visit www.intel.com/go/wirelessdisplay. Content requiring output protection such as Blu-ray* and DVD movie playback is not supported. Check with your PC manufacturer for specific details. Wireless experience and transmission rates may be affected by external factors. Other names and brands may be claimed as the property of others.

Agenda

Environment/Trends
Platform/Brand Overview
Product Features
Performance Benchmarks
SKU Summary

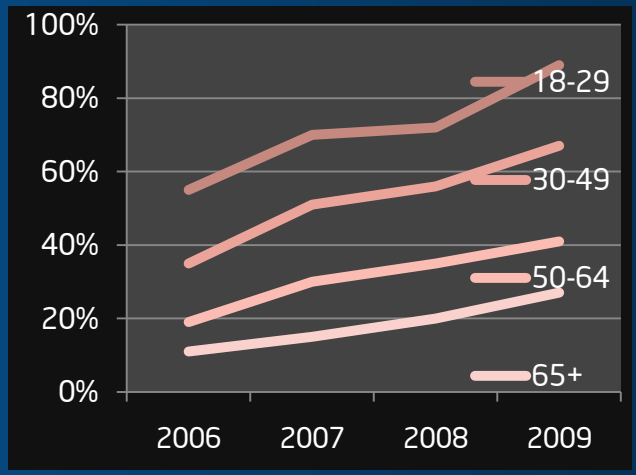
Mega Trend: Media Creation & Consumption

User-generated Content Creation



Source: eMarketer.com

Online Video Consumption

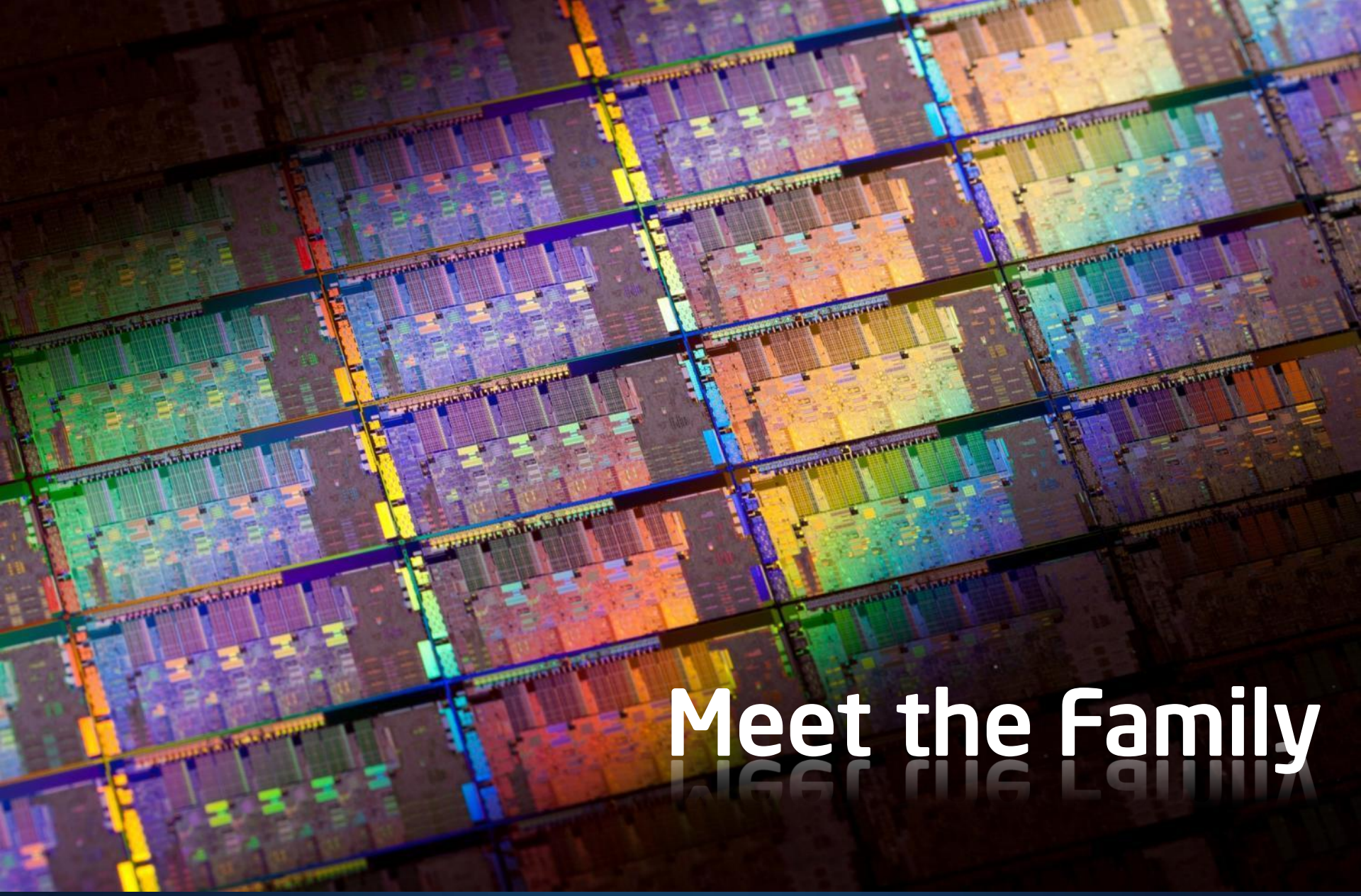


Source: Pew Internet & American Life Project survey conducted from March 26-April 29, 2009.

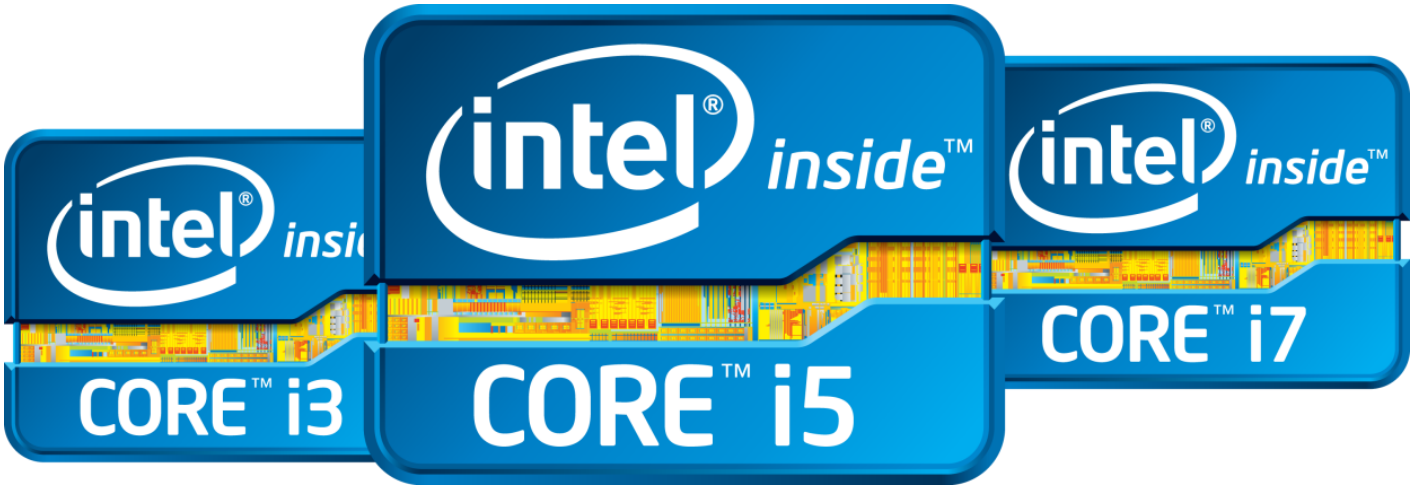
- Netflix* has 14 million subscribers with 34% year over year growth
- Facebook* receives 415,000 video uploads a day
- By 2013, Video will be 90% of all Consumer IP traffic*

Optimizing PC performance to media creation, up/downloading, and [visually compelling] consumption

Source: Intel Internal Worldwide Research, 01/2010



2nd Generation Intel® Core™ Processor Family

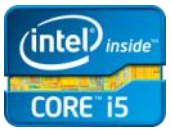


Smart performance and built-in visuals for a visibly better PC experience.
The 2nd generation Intel® Core™ processor family. Visibly smart.

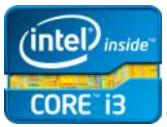
On January 2-8, 2011, Intel Will Announce the 2nd Generation Intel® Core™ Processor Family

- **One** new Intel® Core™ i7 Extreme Edition processor
  - Mobile: i7-2920XM

- **Twelve** new Intel® Core™ i7 processors
  - Mobile: i7-2820QM, i7-2720QM, i7-2630QM, 2635QM, i7-2620M, i7-2649M, i7-2629M (aka LV) , i7-2657M, i7-2617M (aka ULV)
  - Desktop: i7-2600K, i7-2600S, i7-2600



- **Twelve** new Intel® Core i5 processors
  - Mobile: i5-2540M, i5-2520M, i5-2410M, i5-2537M (aka ULV)
  - Desktop: i5-2500K, i5-2500S, i5-2500T, i5-2500, i5-2400, i5-2400S, i5-2390T, i5-2300



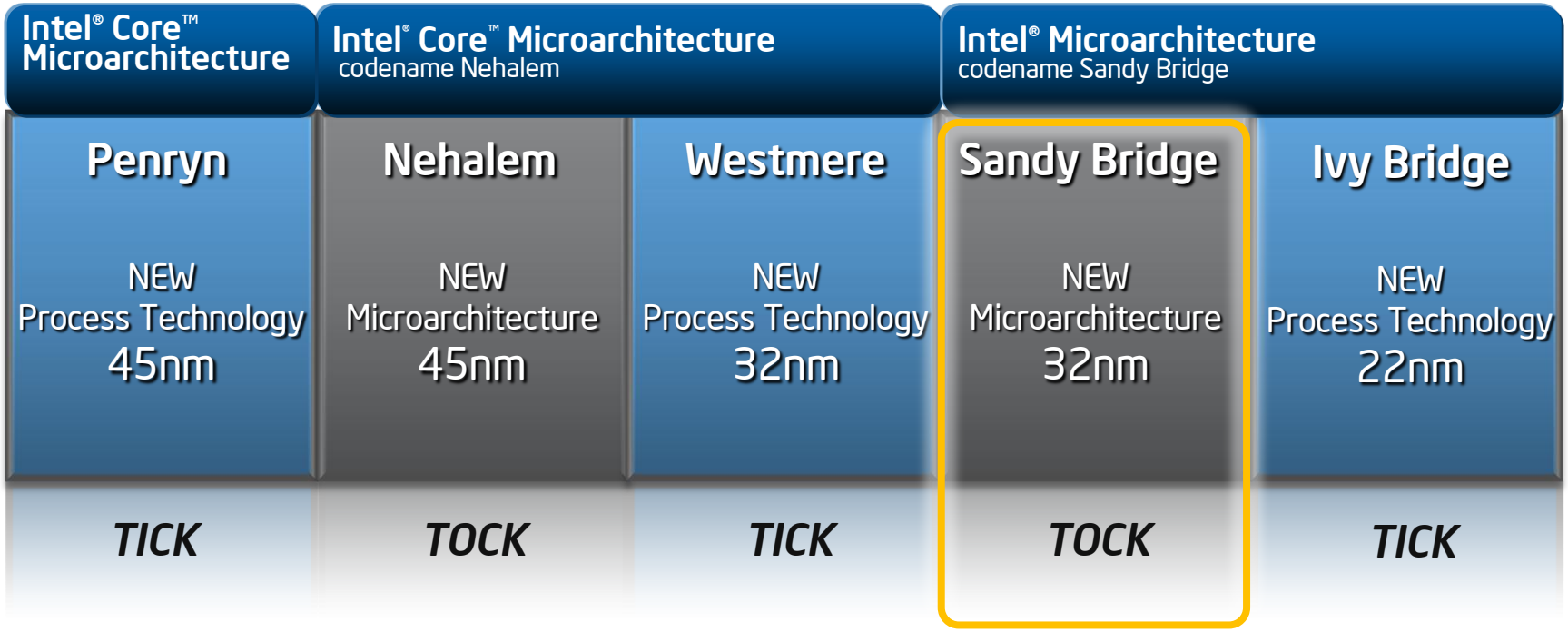
- **Four** new Intel® Core™ i3 processors
  - Mobile: i3-2310M
  - Desktop: i3-2120, i3-2100, i3-2100T

- **Ten** new Intel® Chipset offerings
  - Mobile: QS67, QM67, HM67, HM65, UM67
  - Desktop: P67, H67, Q65, Q67, B65
- **Four** new wireless options:
  - Intel® Centrino® Advanced-N + WiMAX 6150
  - Intel® Centrino® Advanced-N 6230
  - Intel® Centrino® Advanced-N 6205
  - Intel® Centrino® Wireless-N 1030

Tracking >500 Design Wins

New Intel® Microarchitecture

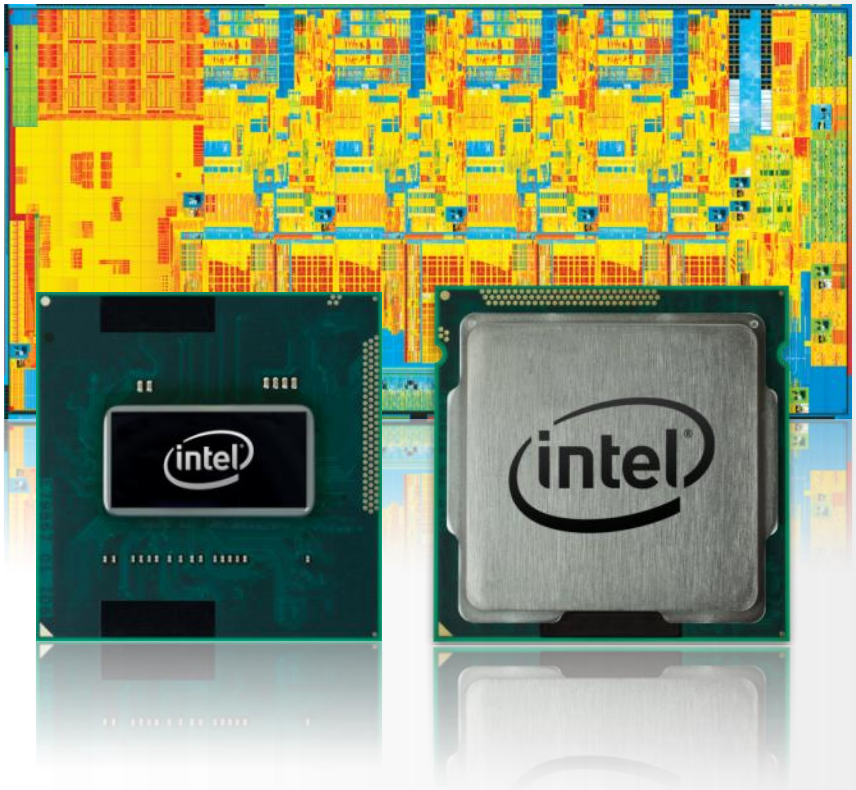
2nd Generation Intel® Core™ Processor Family - *Codename Sandy Bridge*



All new micro-architecture delivers breakthrough performance and capabilities

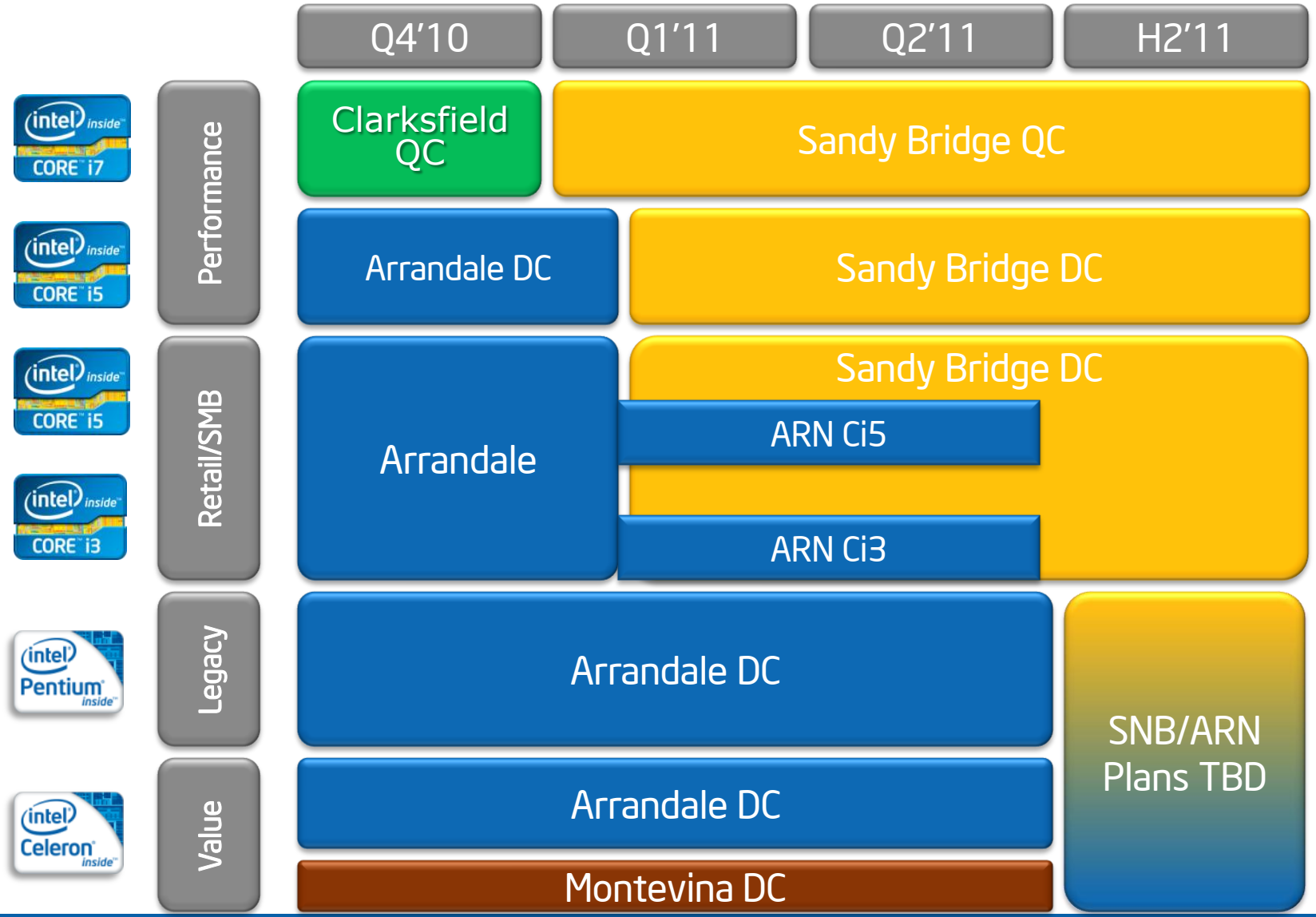
2nd Generation Intel® Core™ Processor Family

Overview

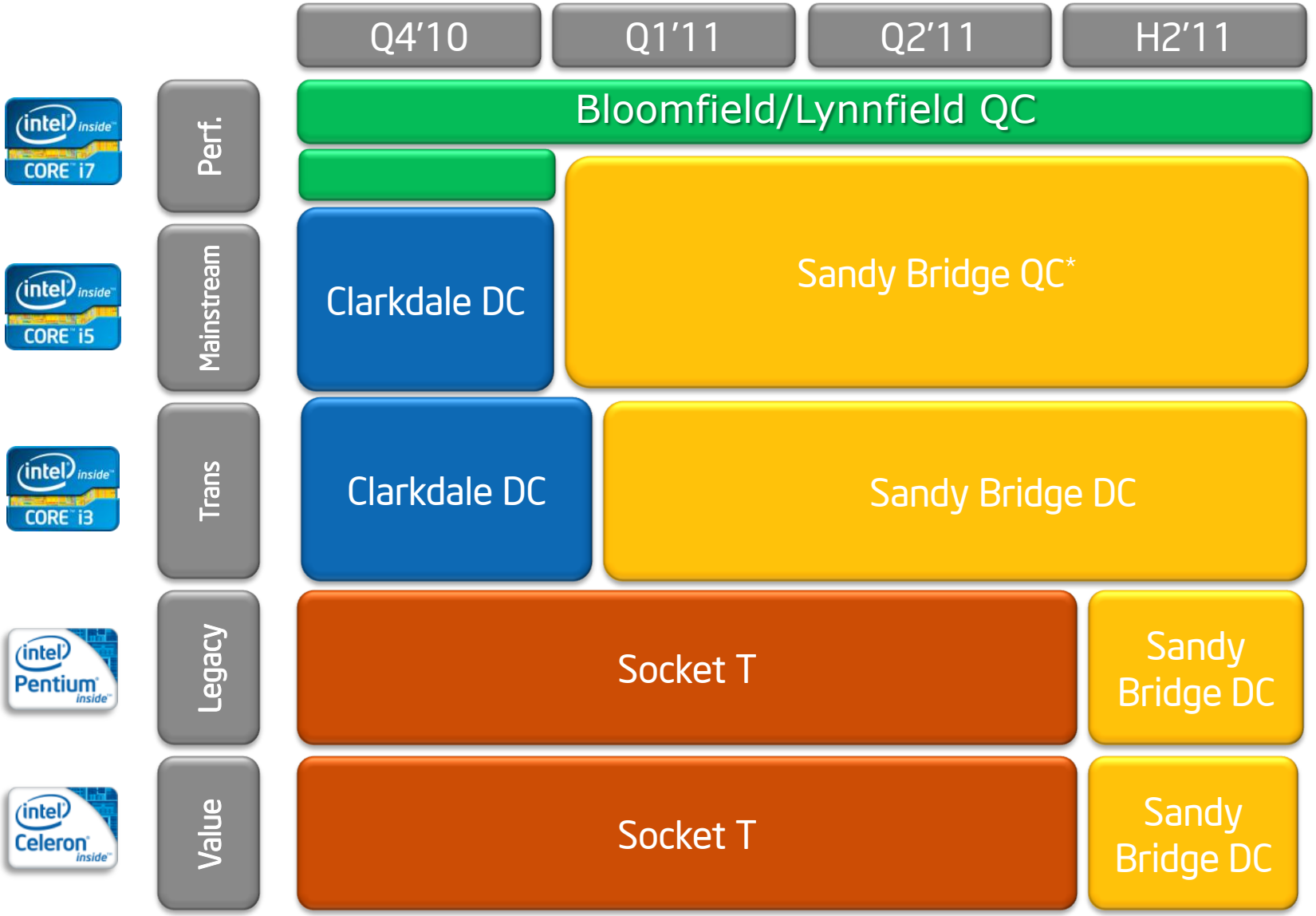


- New 32nm Intel microarchitecture
- Impressive leap in energy-efficient performance
- Optimized Intel® Turbo Boost Technology and Intel® Hyper-Threading Technology
- Significant advances in visual and 3D graphics capabilities
- New Intel® Advanced Vector Extensions(AVX) instructions for enhanced floating point intensive application performance

Mobile Sandy Bridge Roadmap



Desktop Sandy Bridge Roadmap



* *Exception: Core-i5-2390T is Dual Core*

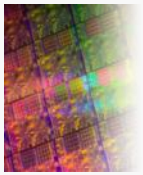
Product Features

2nd Generation Intel® Core™ Processor Family

Adaptable performance when you need it

- Intel® Turbo Boost Technology 2.0[2] and Intel® Hyper-Threading Technology
- Higher levels of CPU and performance than prev gen

Enables innovative designs with increased performance



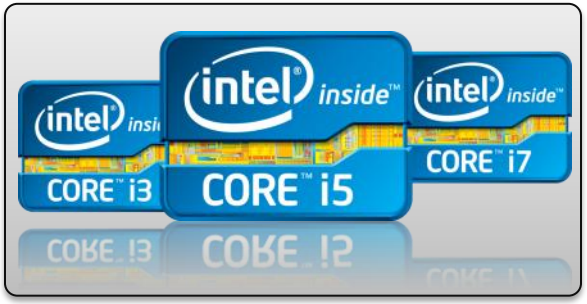
- Impressive leap in energy-efficient performance with new 32nm micro-architecture

Incredibly fast content creation

- Breakthrough media processing for incredibly fast video editing and sharing
- Intel® Advanced Vector Extensions

Stunning visual experience

- Intel® Clear Video Technology
- Liquid Smooth HD playback with visual quality and color fidelity enhancements



Enjoy an immersive 3D experience on your PC

- Stereoscopic 3D Blu-ray* playback in full 1080p resolution over HDMI 1.4 & premium audio

Fun gaming for everyone

- Significant 3D performance for immersive mainstream gaming
- DirectX* 10.1, OGL 3.0

Wirelessly enjoy & share laptop content on your TV

- Intel® Wireless Display[1] for laptop PCs
- Hassle free wireless connection to HDTV via the home network

Energy efficient, sleeker designs

- Industry leading battery life
- Ultra-thin laptops
- Innovative DT designs

What to remember:

1. Visibly smarter performance
2. Improved media and visual quality experiences
3. Better ways to connect and share
4. Better energy efficiency and battery life

[1] Intel® My WiFi Technology is an optional feature and requires additional software and a Centrino® wireless adapter. Wi-Fi devices must be certified by the Wi-Fi Alliance for 802.11b/g/a in order to connect
[2] Intel® Turbo Boost Technology 2.0 is exclusively available with Intel® Core™ i5 and i7 processor series only
Other names and brands may be claimed as the property of others.

2nd Gen Intel® Core Processors for Ultra-thin Laptops

The perfect balance of style, performance, and battery life

Slim and Light Form Factor Innovation

- 22% package size reduction
- 17W TDP enables 0.8" system thickness targets

Outstanding Performance Gains

- Targeting over 30% performance improvement[1]

Revolutionary New Media Capabilities

- Sharing the same enhanced visual features as standard volt skus
- Intel® HD Graphics 3000

Best in Class Platform Battery Life

- Continued industry leading battery life

Refer to roadmap for ULV schedule availability
*Form factor is dependent on system configuration

[1] Compared to prior generation ultra-thin skus. Based on SysMark07 and Geo mean measuring top bin SV BGA MS3 and top bin PULV

2nd Gen Intel® Core Processors for Lifestyle PCs

The perfect balance of style, performance, and energy efficiency

Perfect Balance of Power and Performance

- Complete low power roadmap including 65W, 45W and 35W
- High Performance QC and DC, Energy Efficient processors

Outstanding Performance Gains

- Targeting over 30% performance improvement[1]

Revolutionary New Media Capabilities

- Intel ® Quick Sync Video powers advanced media capabilities for real time editing and sync

Best in Class Processor Graphics

- Intel HD Graphics delivers enhanced realism for casual and mainstream gaming

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

[1] Compared to prior generation All-in-one skus. Based on SysMark07 and Geo mean measuring top bin SV BGA MS3 and top bin PULV

Intel Desktop Enthusiast Platforms

Unleashed performance and flexibility

- Amazing processor performance
- Extra large cache
- Highest memory bandwidth
- Multiple graphics options
- Highly tunable platforms

Extreme Gaming

Amazing Multimedia

Ultimate Flexibility

Overclocking Enabled[1]

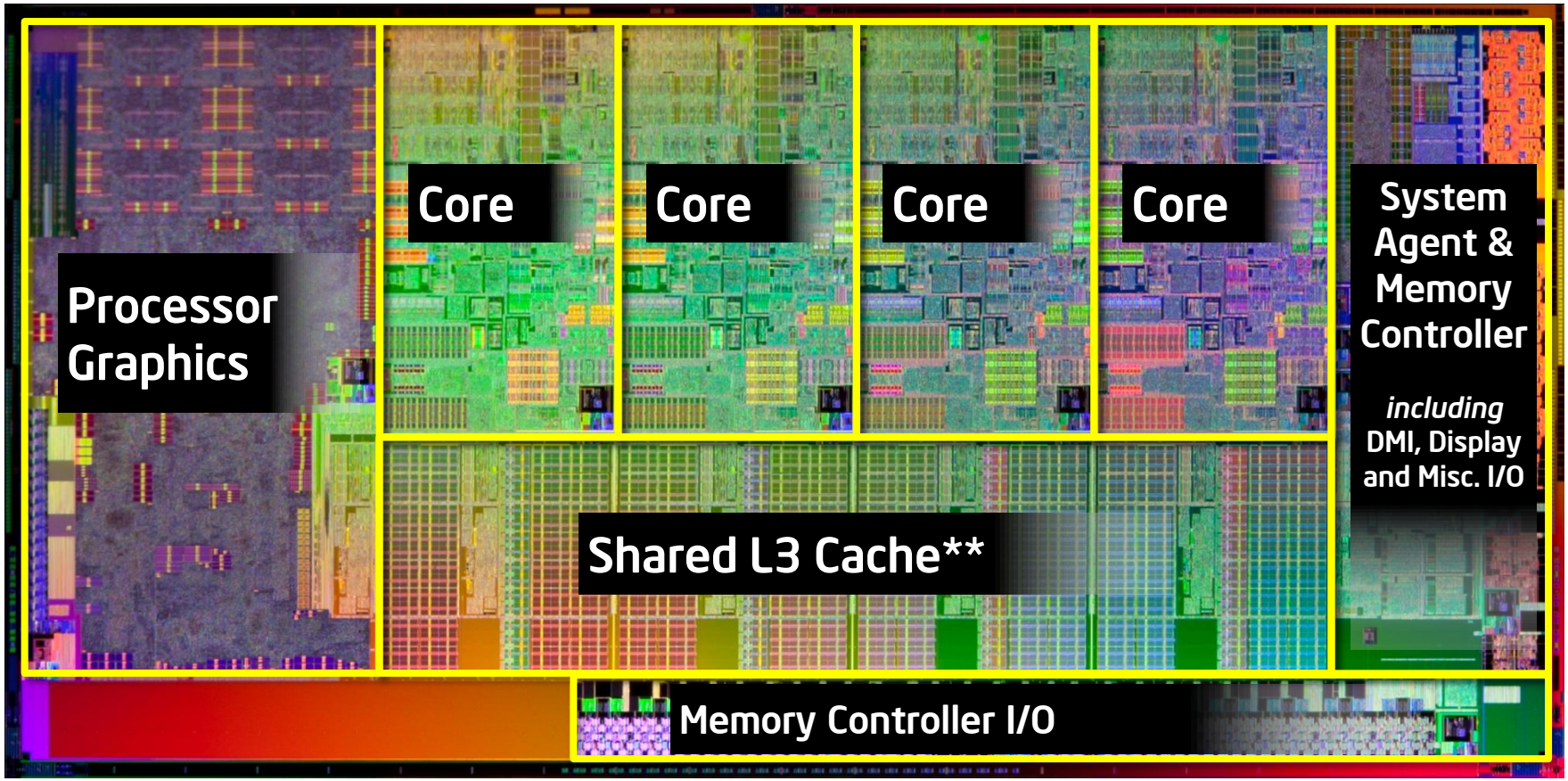
Unlocked enthusiast processors extend performance and flexibility

UNLOCKED

- **Intel® Core™ i7-980X processor Extreme Edition:** *The world's fastest, smartest processor*
- ***New!*** **Intel® Core™ i7-2600K and Core™ i5-2500K processors:** *Flexible overclocking capabilities*

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.

2nd Generation Intel® Core™ Processor: New Architecture



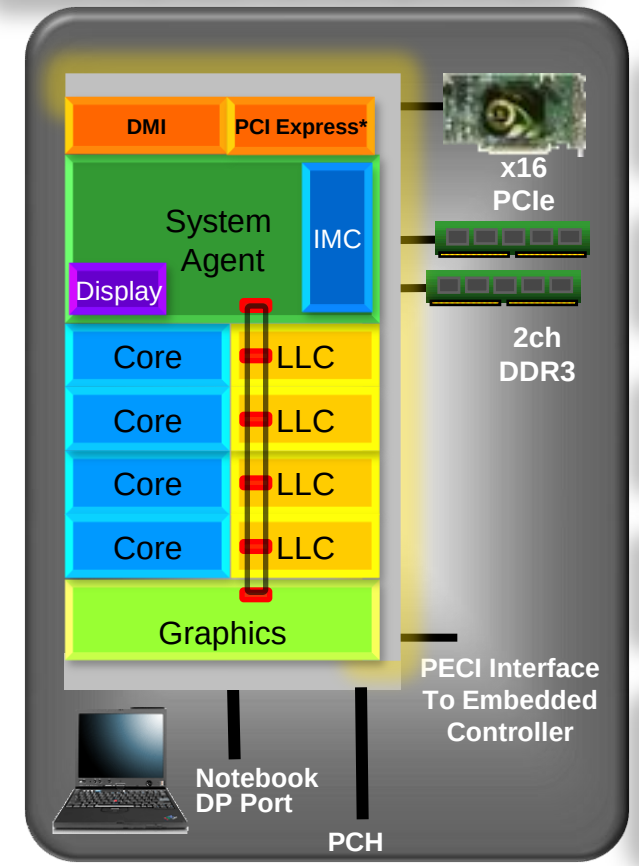
New architecture with shared cache delivering more performance and energy efficiency

** Cache is shared across all 4 cores and processor graphics

2nd Gen Intel® Core™ Processor Overview

Integrates CPU, Graphics, MC, PCI Express* On Single Chip

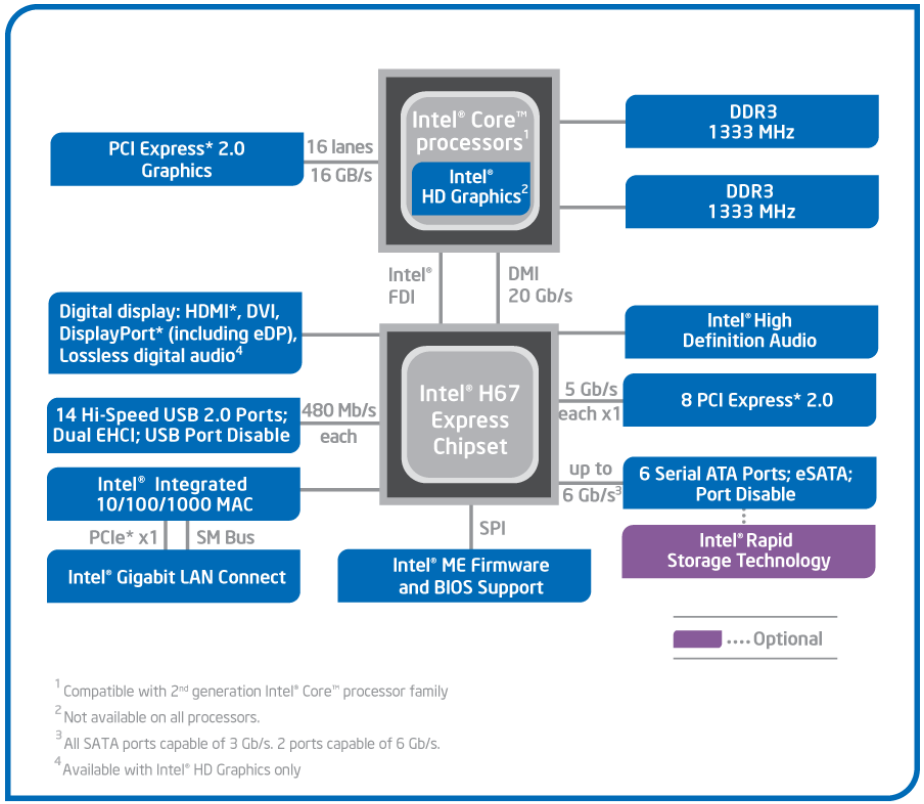
- Next Generation Intel® Turbo Boost Technology
- High Bandwidth Last Level Cache
- Next Generation Processor Graphics and Media
- Embedded Display Port
- Discrete Graphics Support: 1x16 or 2x8



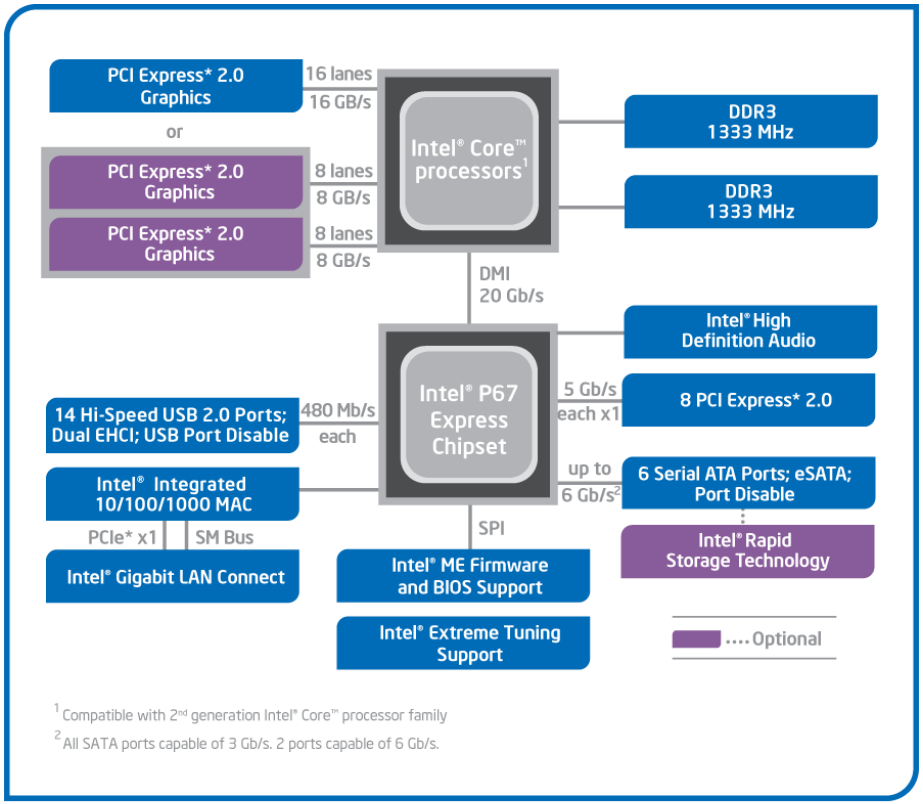
- High BW/low-latency modular core/GFX interconnect
- Substantial performance improvement
- Intel® Advanced Vector Extension (Intel® AVX)
- Integrated Memory Controller 2ch DDR3
- Intel® Hyper-Threading Technology
  4 Cores / 8 Threads
  2 Cores / 4 Threads

Stunning Performance and Energy Efficiency

Intel® 6 Series Chipset Block Diagrams

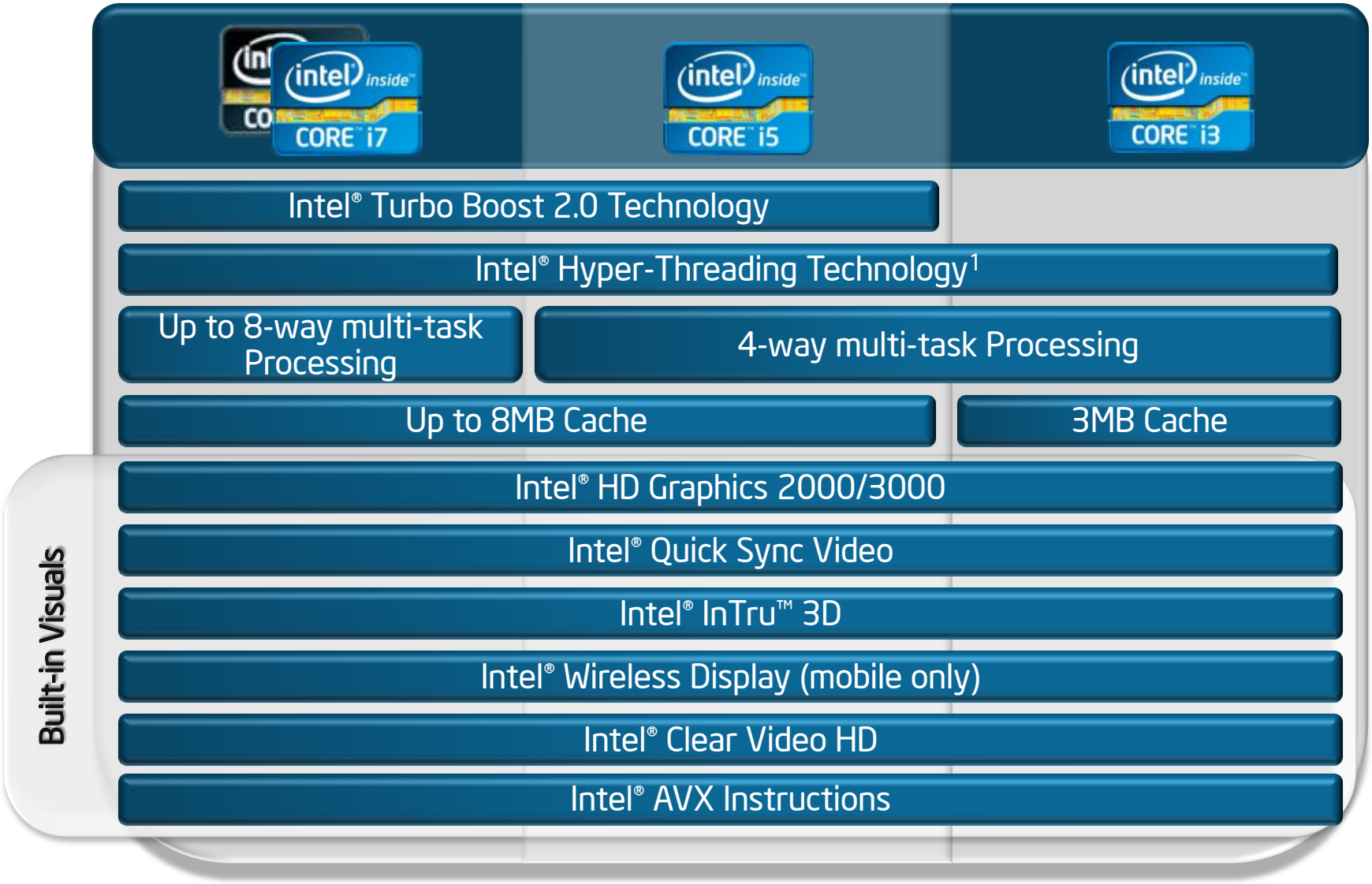


Intel® H67 Express Chipset Platform Block Diagram



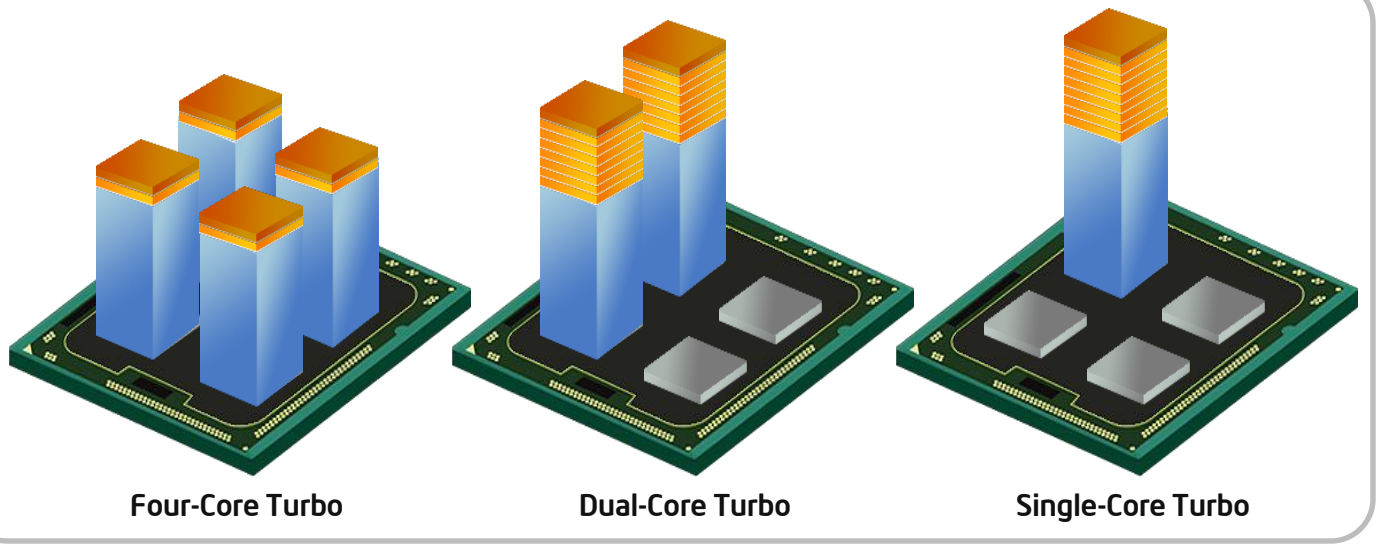
Intel® P67 Express Chipset Platform Block Diagram

2nd Gen Intel® Core™ Processor Brand Features



Features may vary. Please refer to the latest roadmaps for product availability and feature details
Note 1: Intel® Hyper-Threading Technology not avail on certain Intel® Core™ i5 processor skus for Desktop

Intel® Turbo Boost Technology[1] 2.0



Efficient.

- Adapts by varying turbo frequency to conserve energy depending upon the type of instructions

Dynamic.

- Boosts power level to achieve performance gains for high intensity "dynamic" workloads

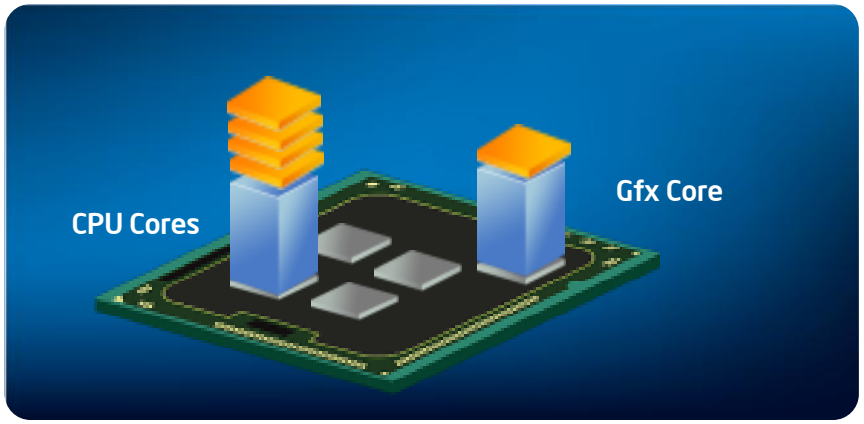
Intelligent.

- Power averaging algorithm manages power and thermal headroom to optimize performance

Intel® Turbo Boost Technology 2.0 delivers intelligent and energy efficient performance on demand

Note1: See Intel® Turbo Boost Technology disclaimer in the back-up
Note2: Dynamic Range does not represent additional Turbo bins
Note3: The number of Turbo bins shown is only for illustrative purposes and is not representative of the actual number of turbo bins available.

Graphics Dynamic Frequency and Power Sharing



CPU Turbo bins & Graphics Dynamic Frequency (with Dynamic Range)

Base Frequencies

Idle mode

Note1: Power Sharing shown here with Single Core Turbo is only for illustrative purposes. Power Sharing can also occur when other cores are active as long as thermal headroom exists

Note2: Sandy Bridge is a monolithic die with integrated graphics. Graphics Core shown above as separate from CPU Cores is only for illustrative purposes.

- **Intel® HD Graphics with Dynamic Frequency delivers graphics performance boost to graphics intensive applications**
- **Power sharing algorithm works in concert with Intel® Turbo Boost Technology 2.0 to deliver performance when and where needed**

Performance boost to graphics intensive applications when power and thermal headroom exist

Note1: Power Sharing shown here with CPU Turbo bins and Graphics Dynamic Frequency levels is only for illustrative purposes. Number of Turbo bins and Graphics Dynamic Frequency levels can vary depending upon the workloads and power & thermal headroom. Power is shared even when CPU & Graphics cores are active as long as thermal headroom exists

Note2: Sandy Bridge is a monolithic die with integrated graphics. Graphics Core shown above as separate from CPU Cores is only for illustrative purposes.

Note3: See Intel® Turbo Boost Technology disclaimer in the back-up

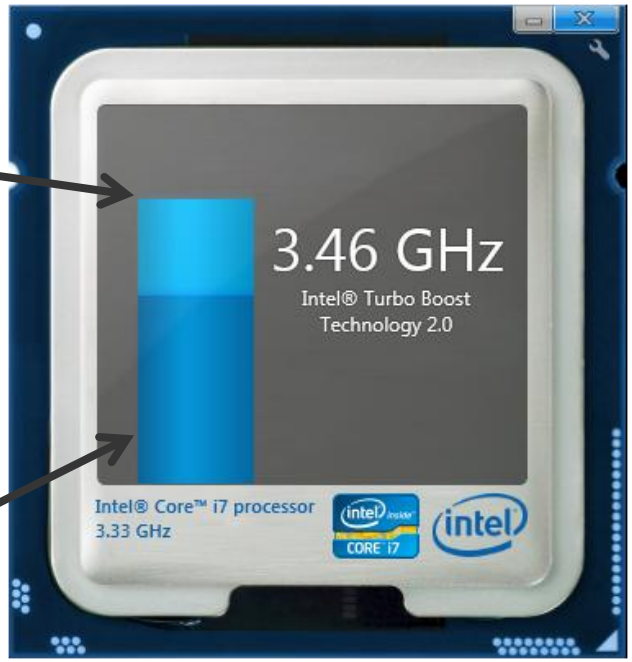
Intel® Turbo Boost Technology Monitor 2.0

for 2nd Generation Intel® Core™ Processor Family

Displays processor frequency changes including Intel® Turbo Boost technology 2.0

Intel® Turbo Boost Technology frequency

Processor operation when not using Intel Turbo Boost Technology



Processor operating below rated power

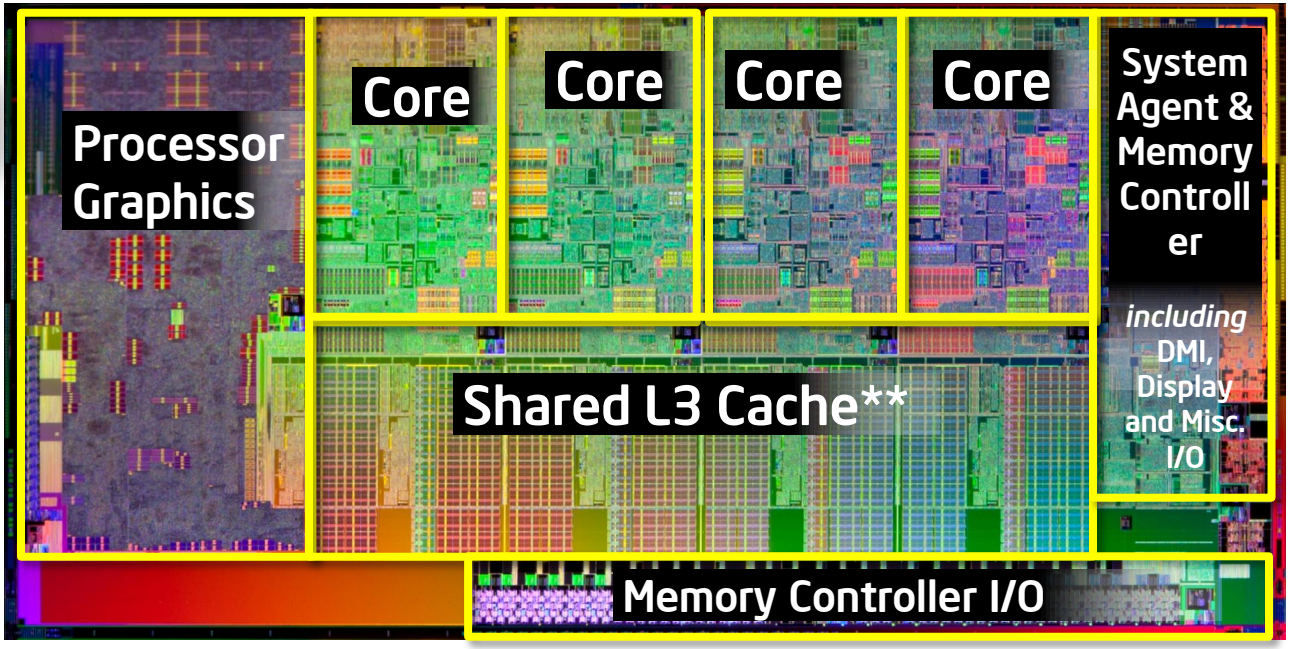
A Windows* 7 application , targeting availability on Intel.com January'11

End-user display for 2nd Gen Intel® Core™ Processors with Intel® Turbo Boost Technology 2.0

2nd Generation Intel® Core™ Processor Graphics

Built in Graphics - Industry Leadership on 32nm

- Dedicated media processing
- Shared cache (LLC)
- Ring Architecture
- Dynamic Frequency



Lower power consumption — Cooler

Visual Experience — Richer

Thinner form factors — Lighter!

Seamless Visual Experience:

Built-in Visuals

Intel® Quick Sync Video

Breakthrough media processing for incredibly fast creating, editing and sharing of content.

Accelerated Encoding, Decoding and Transcoding features. (e.g. conversion of media for portable players and online video sharing services.

Intel® InTru™ 3D

Stereoscopic 3D Blu-ray* playback experience in Full HD 1080p resolution in 3D (over HDMI 1.4)

Intel® Clear Video HD

Visual quality and color fidelity enhancements for spectacular HD playback and immersive web browsing)

Intel® Wireless Display (mobile only)

Hassle free wireless connection of PC to HDTV via the home network. Share videos, photos and music on the biggest screen on the house.

Now with 1080p playback.

Intel® HD Graphics

Significant 3D performance for an immersive mainstream & casual gaming experience supporting a broad range of game titles.

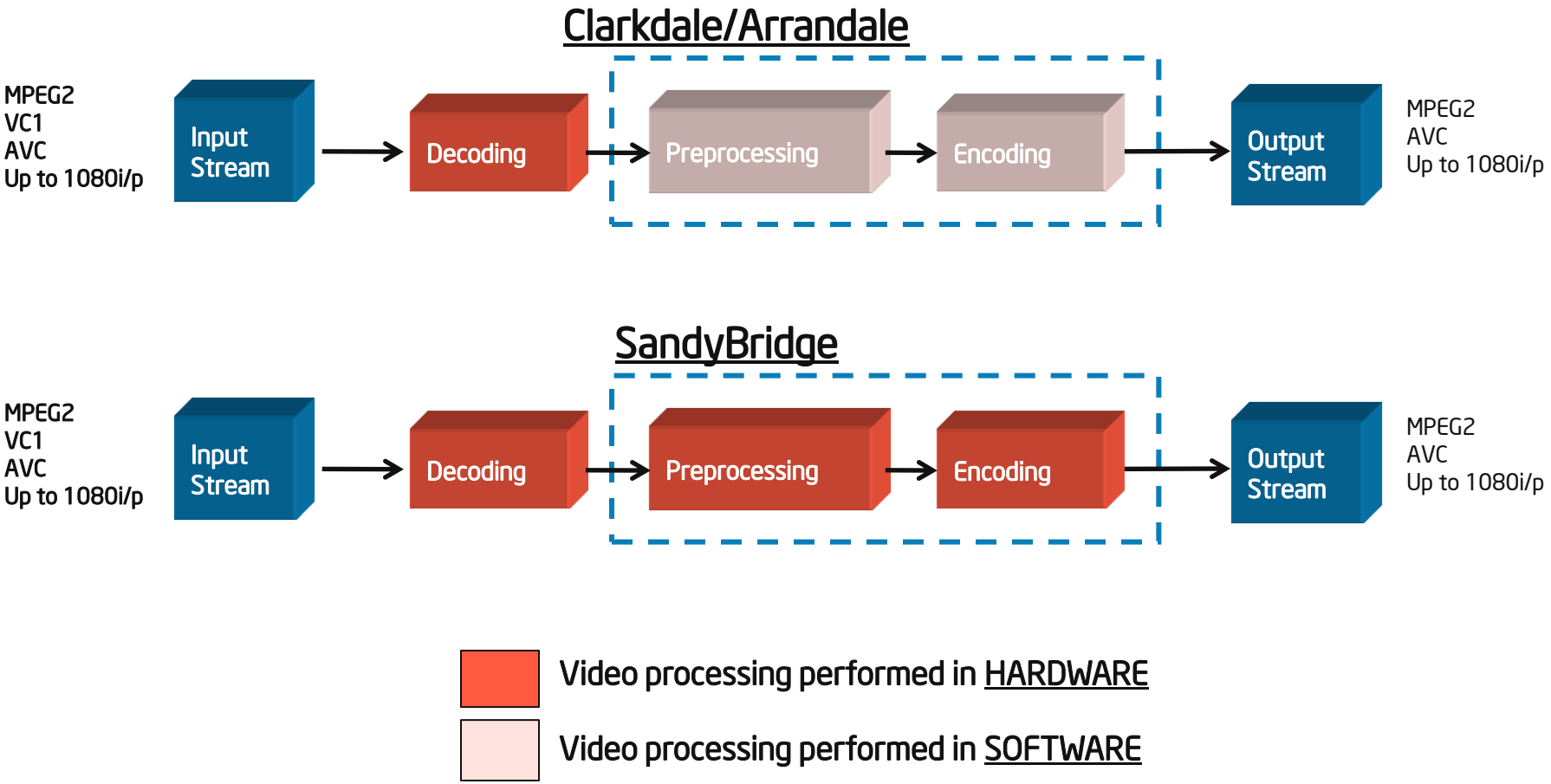
Intel® Advanced Vector Extensions

Increased performance for demanding visual applications like professional video & image editing

2nd Generation Intel® Core™ Processors delivers a new Set of Visual Features targeting the desires of today's consumers.

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

Intel® Quick Sync Video Implementation



Top Video Conversion/Editing Applications Adopting Intel® Quick Sync Video

Partial list of ISVs

"Corel has integrated the Media Processing features of the 2nd generation Intel® Core™ Processor Family into Corel DVD Factory. We are impressed with the performance we have seen and expect significantly faster BD/DVD authoring with Corel DVD Factory and Intel® Quick Sync Video."

- Norman Hung, Product Management, Corel

COREL

"ArcSoft MediaConverter is being optimized for Intel® Quick Sync Video to deliver blazing fast conversion of H264 video for media players and online sharing. We are excited about the Media Processing features of the 2nd generation Intel® Core™ Processor Family."

ArcSoft

- George Tang, VP and GM Video & Home Entertainment Group, ArcSoft

"CyberLink has been amazed with the Media Processing capabilities of the 2nd generation Intel® Core™ Processor Family, as we incorporate them into CyberLink MediaEspresso. Optimized for Intel® Quick Sync Video, CyberLink MediaEspresso is expected to deliver incredibly fast media processing for conversion of video files for portable media players and for upload to popular online social networking sites."

- Alice H Chang, CEO, CyberLink

CyberLink

- Alice H Chang, CEO, CyberLink

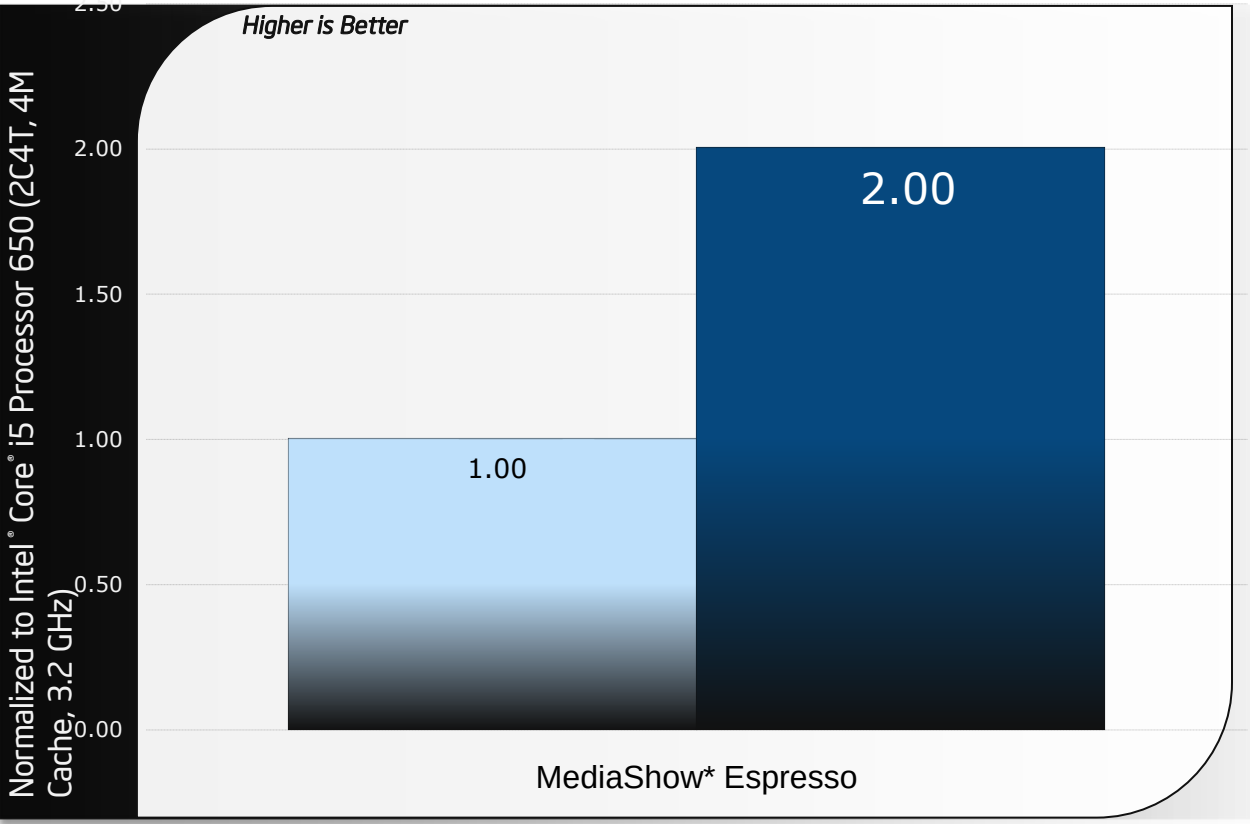
**Other names and brands may be claimed as the property of others*

***Applications has not yet been released to market. Information on this slide is based on ongoing development and subject to change*

intel

Intel® Quick Sync Video Performance

- Intel® Core™ i5-650 Processor (2C4T, 4M Cache, 3.2 GHz)
- Intel® Core™ i5-2400 Processor (4C4T, 6M Cache, 3.1 GHz)



Micro-architectural Gains → HD Graphics Improvements → Quick Sync Video

HD Video transcode that converts a 720p video clip from a MinoHD* handheld HD camcorder, and prepares it for playback on an Apple* iPod* portable media player.

System Configurations and Disclaimers: Beginning of Presentation

Intel® Quick Sync Video Performance

- Amount of delivered performance improvement can vary widely, depending on a number of factors:
  - Input file characteristics
  - Encoding parameters (quality, codec, target file size, target bit-rate, frame size, etc.)
  - Render target (different portable media players, PC, netbook, etc.)
- Intel is working with many ISVs to drive Quick Sync Video benefits into mainstream applications
- Larger gains are possible using different parameters and encoding applications

Quick Synch Video Performance guidance is a 2X increase vs. previous generation product using software encoding

Seamless Visual Experience:
Intel® InTru™ 3D: Stereoscopic 3D on Blu-Ray* playback

Stereoscopic 3D Blu-ray* playback in full high definition resolution (1080p) on your TV over HDMI 1.4

More energy efficient playback and greater headroom for multi-tasking

Blu-ray 3D

Monsters vs Aliens – *Blu-ray Stereo 3D**

2nd Generation Intel® Core™ Processors offer outstanding Blu-Ray Stereo 3D experience with HDMI 1.4

Seamless Visual Experience:

Intel® Insider™: Your ticket to a world of premium HD movies and entertainment with your PC

End to End Hardware protection for Premium (Movie) Content

Get More Online Movies:

- Broader Online Library*
- Support for HD 1080p (1st time ever for PC)*
- Supports Intel® Wireless Display 2.0

2nd Gen Intel® Core™ processors are your ticket to a world of premium HD movies

*3rd party service required.

2nd Generation Intel® Core™ Processors for PC Gaming

Enthusiast

Enthusiasts
- Graphics Features
- Online Gameplay
- Sophistication (economy, gameplay, community)

Examples: Crysis 2, Left 4 Dead2, Resident Evil 5, Call of Duty Modern Warfare 2, Battlefield Bad Company 2

Mainstream

Broad consumer base
- Gameplay / easy to learn
- Online & Offline (solo) modes
- Mid-Low end graphics (Dx9.0c)

Examples: Spore, The Sims, WoW, Perfect World, FiFA Online, Battlefield Heroes, Need for Speed, Hawx,...

Casual

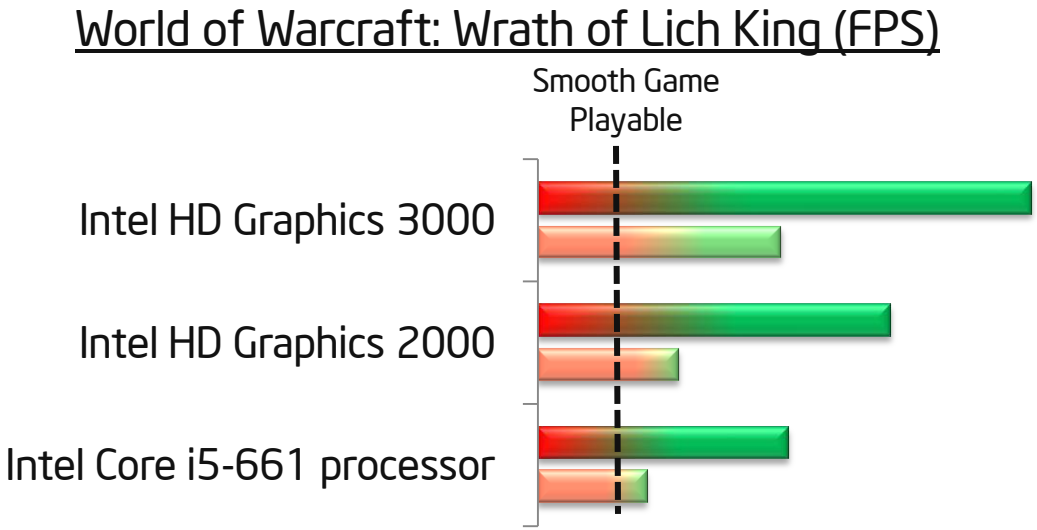
"Fun 4 Everyone"
- Simple, but Addictive
- Easy to download & play
- Wide distribution
- Low system requirements

Examples: Club Penguin, Webkinz, Farmville, World of Goo, Peggle, Bejeweled, Tiger Woods Online, ...

Intel® Core™ i7 + Discrete graphics for Performance Gamers

Intel® Core™ i5 and i3 for Mainstream and Casual Gamers

Seamless Visual Experience:
Intel® HD Graphics: Immersive 3D Experiences



	Medium Settings	Higher Settings
Example Settings	Resolution: 1024x768 Video Quality: Fair Weather Intensity: 1/4	Resolution: 1210x1024 Video Quality: Good Weather Intensity: 3/4

- Intel® HD Graphics 2000 improves on the Core i5-661 mainstream gaming experience
- Intel HD Graphics 3000 offers additional headroom to dial the visual experience higher

2nd Generation Intel® Core™ Processors with Intel® HD Graphics deliver a GREAT mainstream gaming experience

Seamless Visual Experiences
New Intel® Advanced Vector Extension (AVX) Instructions

New instruction set to unleash CPU performance for media and high performance computing applications

[1] Projection based off pre-silicon estimates

Example of AVX Usage: Image Stitching

Intel® AVX improves floating point & vector computation

Faster Performance for floating point intensive applications

Power Efficient

Extensible and Backward compatible with previous generations

Ubiquitous from notebooks to high end servers

This is just a sampling of ISVs Intel is engaging with to utilize AVX; Intel is working with these ISVs to get commitments to enhance their solutions for Sandy Bridge

Intel® Wireless Display (WiDi)
(Optional Mobile Platform Feature)

What is it?

- The hassle-free, wireless way to enjoy PC content on the big screen.
- WiFi 802.11-n High Speed connection to your HDTV to display your Photos, Videos and stream Audio
- Support for 1080p @ launch

Benefits for consumers

- Best seat in the house
- Connection is a snap
- Share Photos, Videos and your favorite websites with family and friends
- Play music from online sites like Pandora through your home theater system.

- Available World Wide

Supporting 1080p at 2nd Gen Intel® Core™ Processor Launch…

Requires a compatible Intel based laptop PC, a TV adapter featuring Intel® Wireless Display, and a TV with an available HDMI or Composite AV input. Compatible laptop PCs require a select Intel® Core™ processor family CPU. For a complete list of requirements, visit www.intel.com/go/wirelessdisplay. Content requiring output protection such as Blu-ray* and DVD movie playback is not supported. Check with your PC manufacturer for specific details.

2nd Generation Intel® Core™ Processor Family Media and Graphics

intel inside CORE i7

intel inside CORE i5

intel inside CORE i3

Stunning Media Experience
- Enhanced Edit/Share for video
- Dual Stream HD playback
- Stereoscopic Blu-Ray* 3D playback

Immersive mainstream and casual gaming experience with entry level discrete performance
- Intel® HD Graphics 3000

Stunning Media Experience
- Enhanced Edit/Share for video
- Dual Stream HD playback
- Stereoscopic Blu-Ray* 3D playback

Immersive mainstream and casual gaming experience with entry level discrete performance
-Intel® HD Graphics 3000 (or)

Mainstream and casual gaming capability
-Intel® HD Graphics 2000

intel Pentium inside

intel Celeron inside

Good Media Experience
Mainstream and casual gaming capability
-Intel® HD Graphics

Good Media Experience
Mainstream and casual gaming capability
-Intel® HD Graphics

Stunning Media and Mainstream Gaming Capabilities Built Into Every 2nd Generation Intel® Core™ Processor

1: Not all features supported on all sku's

Intel® Centrino® Wireless

Introducing Wi-Fi + Bluetooth (Rainbow Peak 1 and Rainbow Peak 2)

	All in One's
WiFi + WiMAX Performance	Intel® Centrino® Advanced-N + WiMAX 6250
WiFi + WiMAX Mainstream NEW	Intel® Centrino® Advanced-N + WiMAX 6150
WiFi Performance	Intel® Centrino® Ultimate-N 6300
WiFi Mainstream NEW	Intel® Centrino® Advanced-N 6205
WiFi + Bluetooth Performance NEW	Intel® Centrino® Advanced-N 6230
WiFi + Bluetooth Mainstream NEW	Intel® Centrino® Advanced-N 1030
WiFi Entry Level	Intel® Centrino® Advanced-N 1000

What is it?

- Next generation Intel Wi-Fi and Bluetooth solutions

Benefits for consumers

- **Better "real world" performance (throughput)** Up to 75% better in multi AP/client environments, and markedly better 3G (cell phone) interference rejection[1]
- **Reliable and consistent connectivity:** Industry's 1st multi-stream 3x3 Wi-Fi for best-in-class link reliability, and 1x2 value Wi-Fi that exceeds competitor 2x2 consistency
- **Now Supporting WiFi & Bluetooth Combined**
- **Extensive over-the-air testing and AP vendor tuning**
- **Support for Intel's industry leading Wi-Fi innovations**
  - Intel® My WiFi Technology
  - Intel® Wireless Display
  - Wi-Fi CERTIFIED™ multi stream 802.11n adapters

Note 1: Up to 2X greater range enabled by 3x3 Draft-N implementations with 3 spatial streams. Actual wireless throughput and/or range will vary depending on your specific operating system, hardware and software configurations.
Note 2: Intel® My WiFi Technology is an optional feature and requires additional software and a

All products, dates, and programs are based on current expectations and subject to change without notice.
1: Disclaimer details in backup

Intel® Centrino® Advanced-N + WiMAX 6250 and 6150
(Optional Platform Feature)

What is it?

- Best in class WiFi (AGN) and WiMAX
- Supports:
  - Intel® My WiFi 3.0
  - Intel® Wireless Display
  - Personal Area Network device connectivity
- Improved active power
- Multi-band for Global reach

Benefits for consumers

- One wireless solution for all your connectivity needs.
- Selection of Ultra Fast Multi-band 4G WiMAX @ 20Mbps
- More carriers supporting WiMAX
- Expanded interoperability

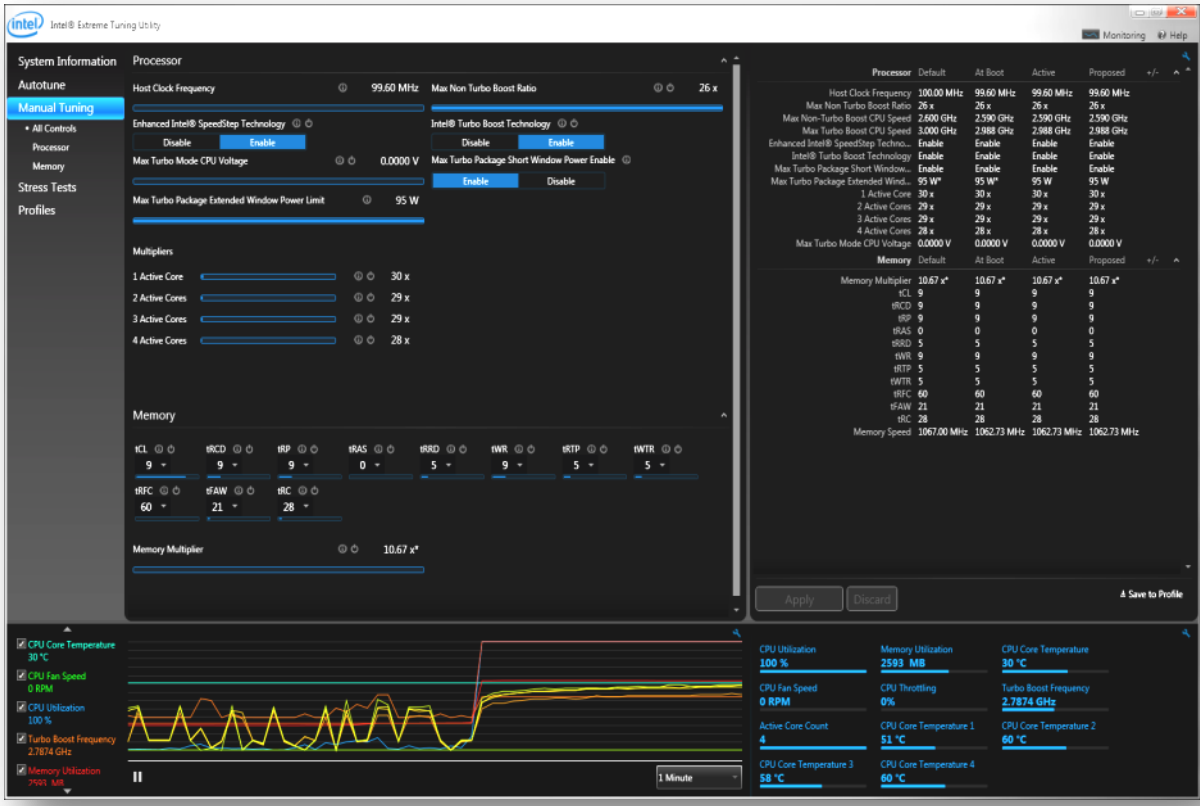
Three Networks in one (WiFi, WiMAX and PAN)

All products, dates, and programs are based on current expectations and subject to change without notice.
1: Disclaimer details in backup

Intel® Extreme Tuning Utility

Simple-to-use tool for novice and experienced enthusiasts

- Simple-to-use Windows application
- Automatic & manual performance tuning, stress testing and system monitoring
- Exposes a set of robust capabilities common in enthusiast platforms
  - Includes Intel® HD Graphics
- Customers customize this SW plug-in, OR use Intel's GUI
- XTU 2.1 adds new GUI and more robust Autotuning
- Supports: Extreme Edition and "K" –SKU Processors.



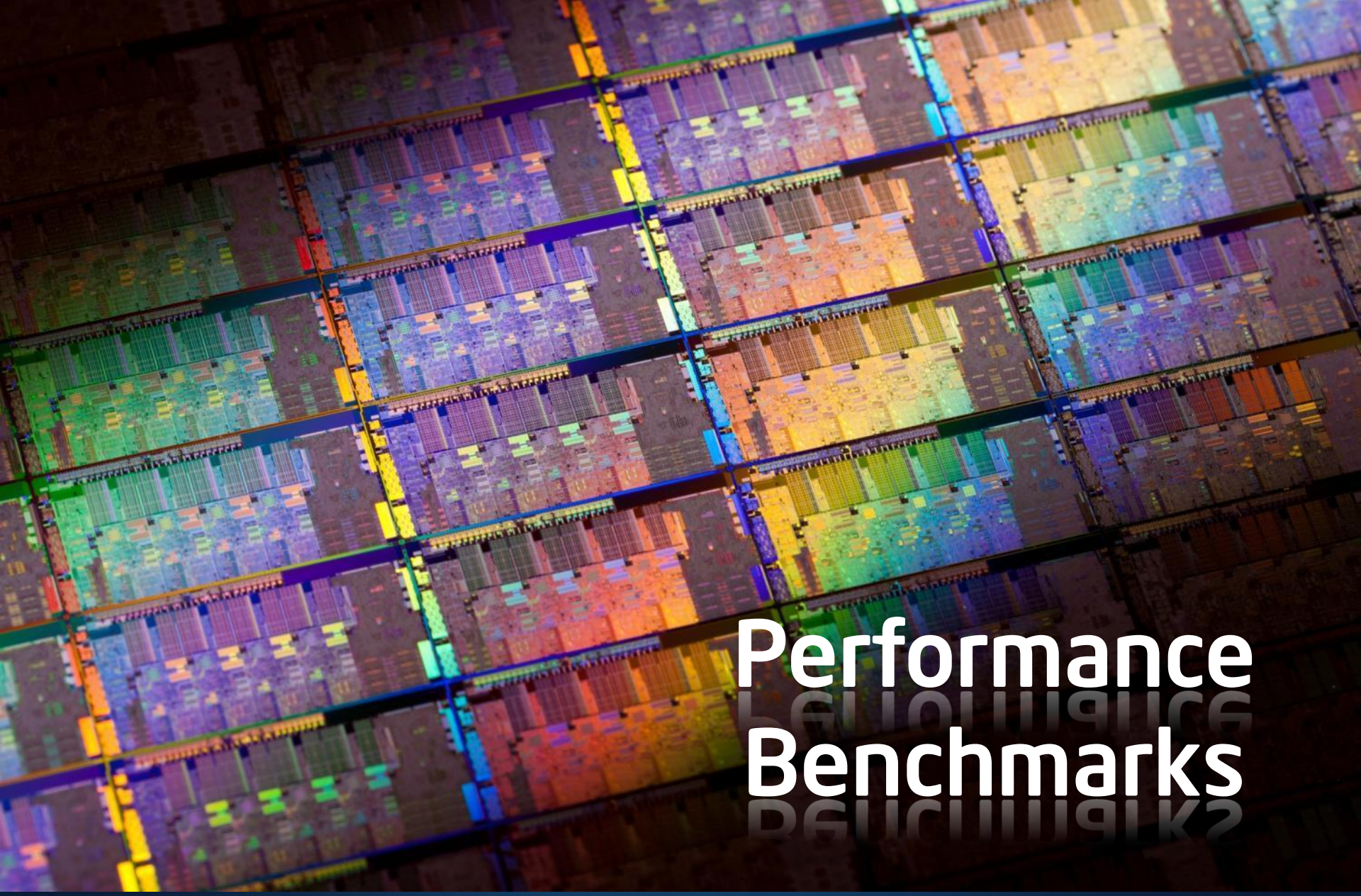
Media Features Comparison

Category	Features	2nd Gen Intel® Core™ Processors + Intel® 6 Series Chipset	2010 Intel® Core Processors + Intel® 5 Series Chipset (1)
Video HW Acceleration	H.264 Encode	New	
	MPEG2 Encode	New	
	AVC, MPEG2, VC1 Decode	●	●
	Dual Video Decode	●	●
Post Processing	Total Color Control	New	
	Skin Tone Detection/Correction	New	
	Auto Contrast Enhancement	New	
	ProcAMP Color Control	●	●
	Sharpness	●	●
	xvYCC*	●	●
	Advanced De-interlacing	●	●
	Film Mode Detection	●	●
	Noise Reduction	●	●
Scaling	8x8 Polyphase Scaling	●	●
Display	HDMI (V.1.4 with 3D)	New	
	Bit Color Depth (12bpc DisplayPort, 12bpc HDMI)	●	●
	Display Outputs: HDMI, DisplayPort, DVI, VGA, SDVO	●	●
Audio	8 Channel LPCM	●	●
	DisplayPort Audio	●	●
	Dolby* TrueHD and DTS*-HD Master Audio	●	●

(1) Intel® P55 and PM55 do not support Intel® HD Graphics

Architecture and 3D Feature Comparison

Category	Features	2nd Generation Intel® Core Processor Intel® HD Graphics {2000/3000}	2010 Intel® Core Processors + Intel® 5 Series Chipset (1)
Architecture Improvements	Unified Shader Architecture	4th Generation	3rd Generation
	Execution Units (EUs)	6/12 EUs	12 EUs
	Dedicated Math box	Yes	Shared
	Media Processing	Yes	No
	Targeted OS Optimizations	Windows 7/Vista/XP	Windows 7/Vista/XP
3D Performance	Core Frequency	Up to 1350 MHz	Up to 900 MHz
	DirectX Support	DX10.1	DX10
	Open GL Support	Open GL 3.0	Open GL 2.1
	Shader Model Support	SM 4.1	SM 4.0
	Dynamic Frequency Scaling	Yes (mobile and DT)	Yes (mobile only)
	Maximum Resolution	2560 x 1600	2560 x 1600
	HDMI[1] (V.1.4 with 3D) Support	Yes	No



Performance Benchmarks

Sandy Bridge Performance Highlights and Sound Bites

Mobile quad-core sees 60%+ gains versus previous gen[1]

2X+ gains on encrypt/decrypt from AES-NI[2]

Desktop Core™ i5 goes quad core 50%+ gains versus previous gen[3]

2X faster versus Intel® Pentium® Processor[4]

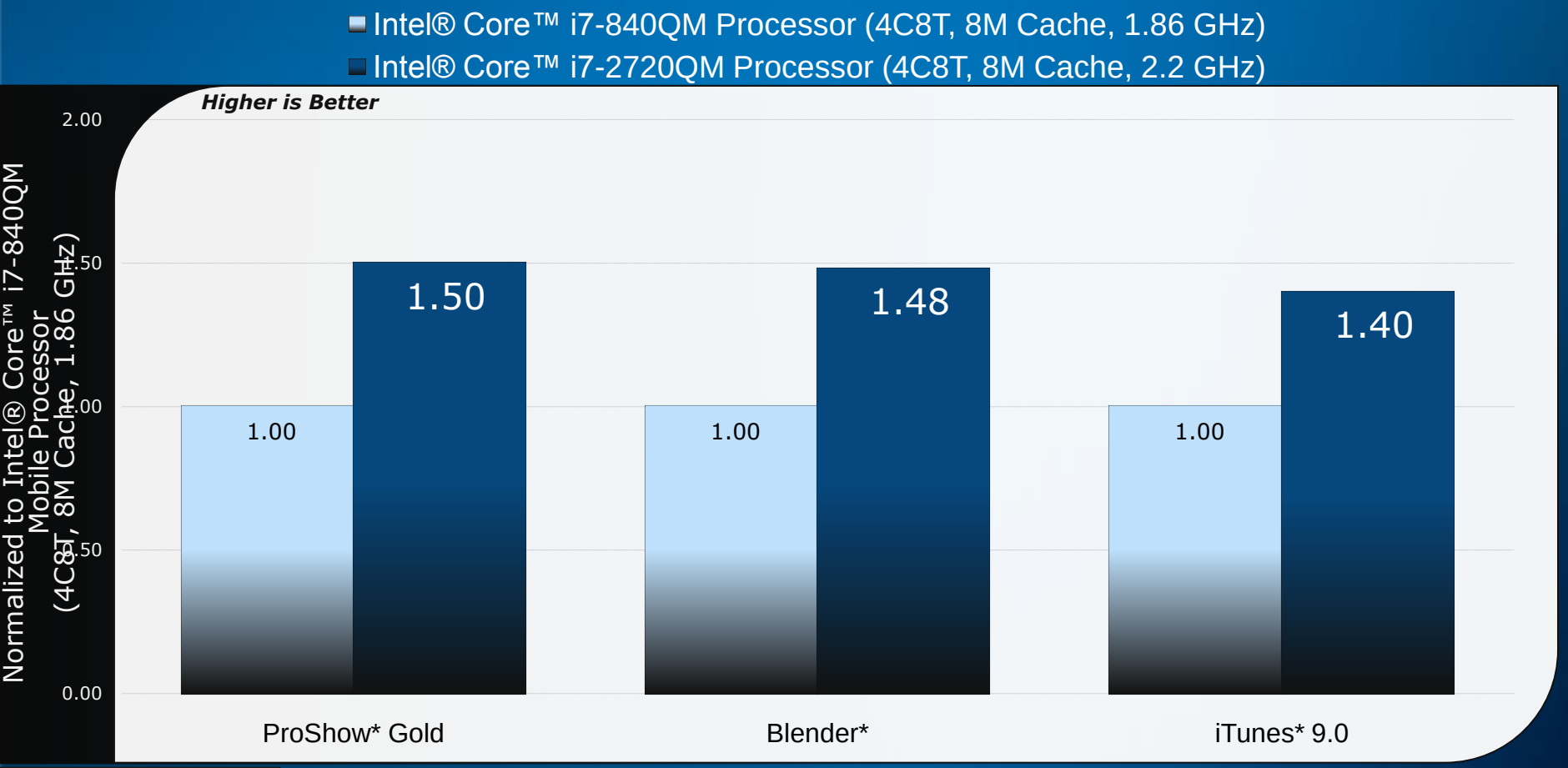
Quick Synch Video delivers 2X gains on HD Media processing[5]

Mobile Intel HD Graphics sees 2X gain versus previous gen on 3D graphics[6]

1. Based on geometric mean of nine performance workloads, see config section for details
2. See slides 17 and for details
3. Based on geometric mean of nine performance workloads, see config section for details
4. Based on geometric mean of nine performance workloads, see config section for details
5. See slide 82 for details
6. Based on geometric mean of 3DMark* Vantage and 3DMark06*, see Slide 37 and config section for details

Mobile Performance

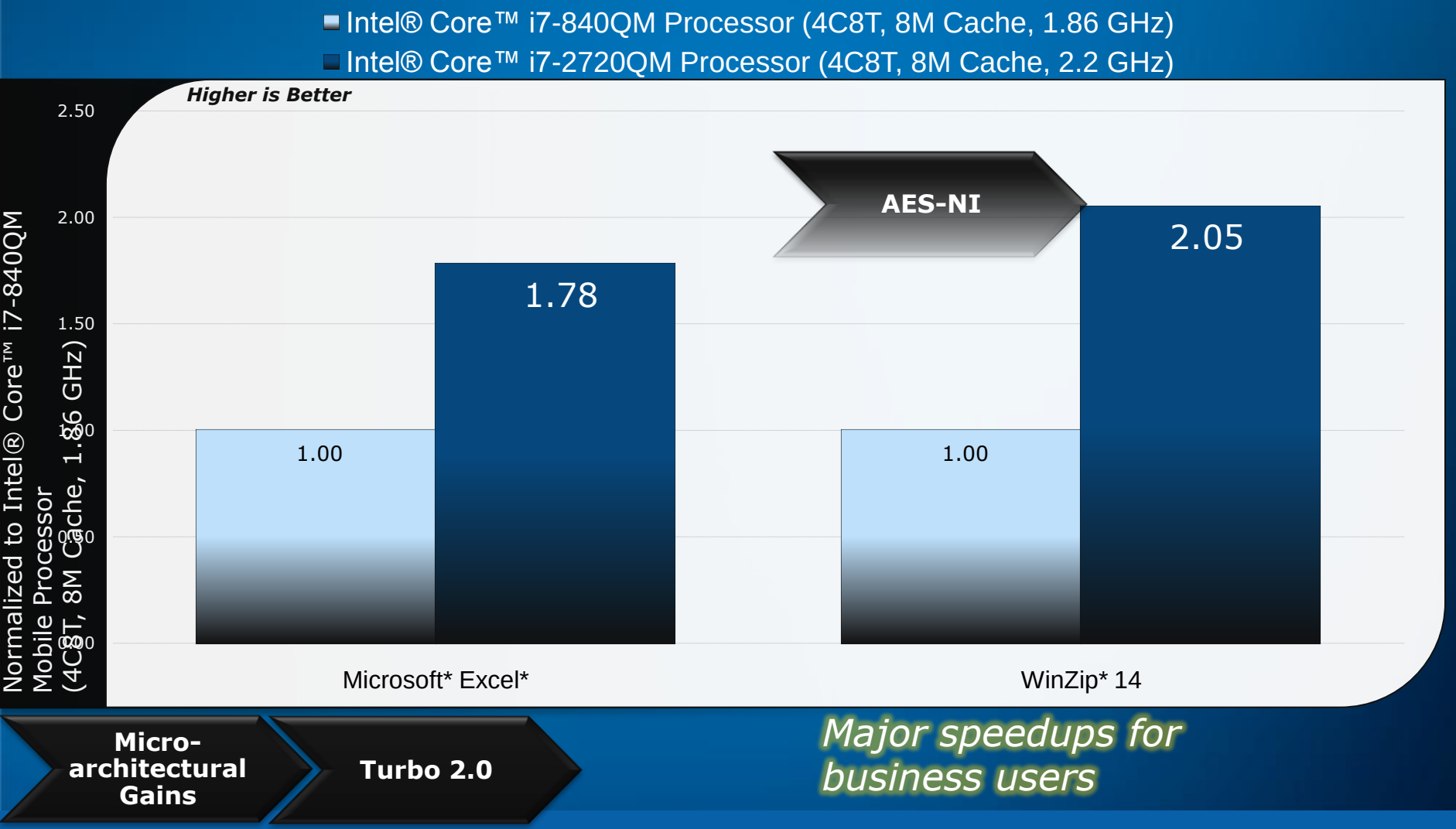
The Intel® Core™ i7-2720QM Processor
Content Creation



Micro-architectural Gains | **Turbo 2.0**

More time creating.
Less time waiting.

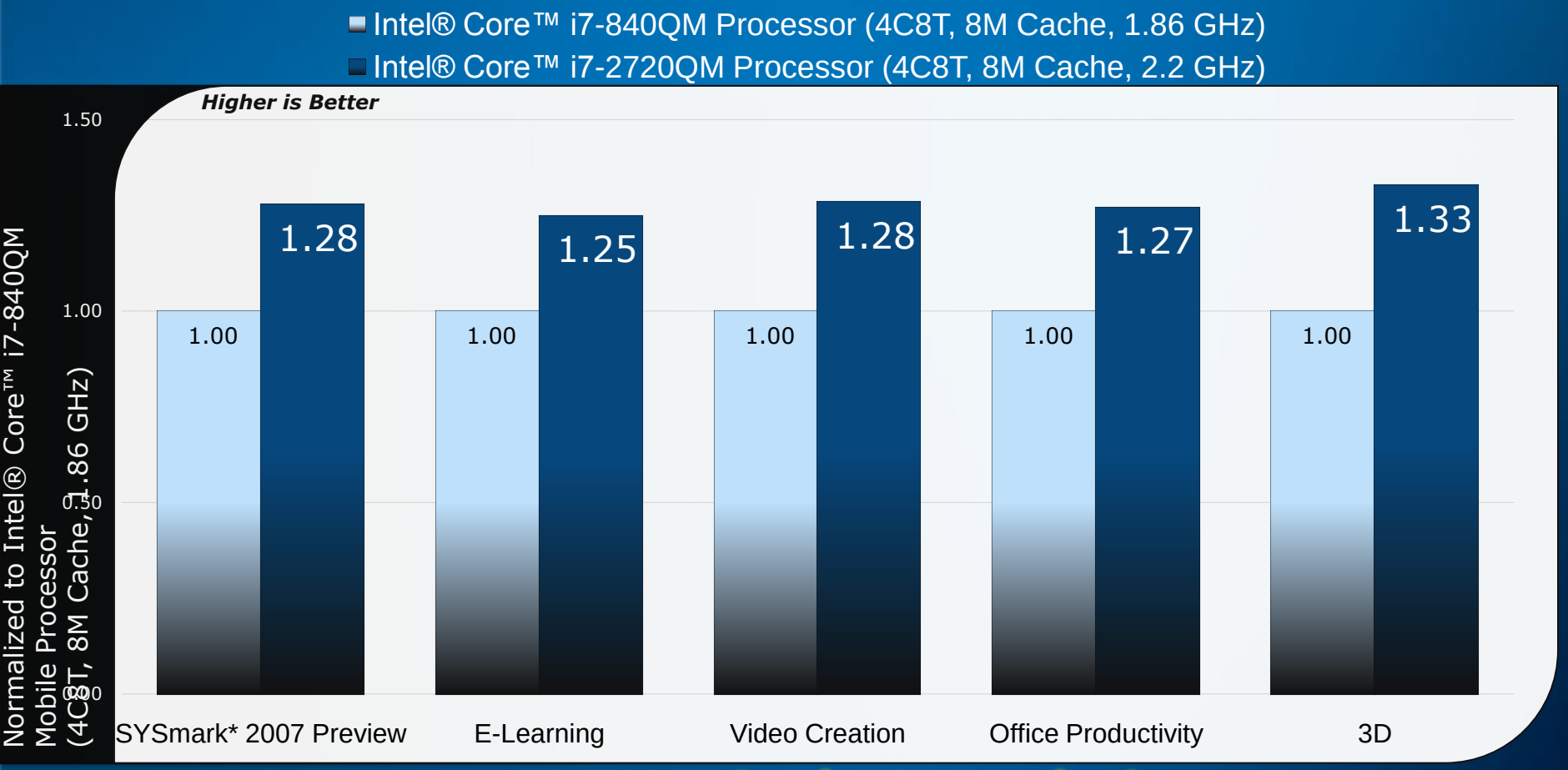
The Intel® Core™ i7-2720QM Processor Productivity



Micro-architectural Gains **Turbo 2.0**

Major speedups for business users

The Intel® Core™ i7-2720QM Processor Productivity – SYSmark* 2007 Preview

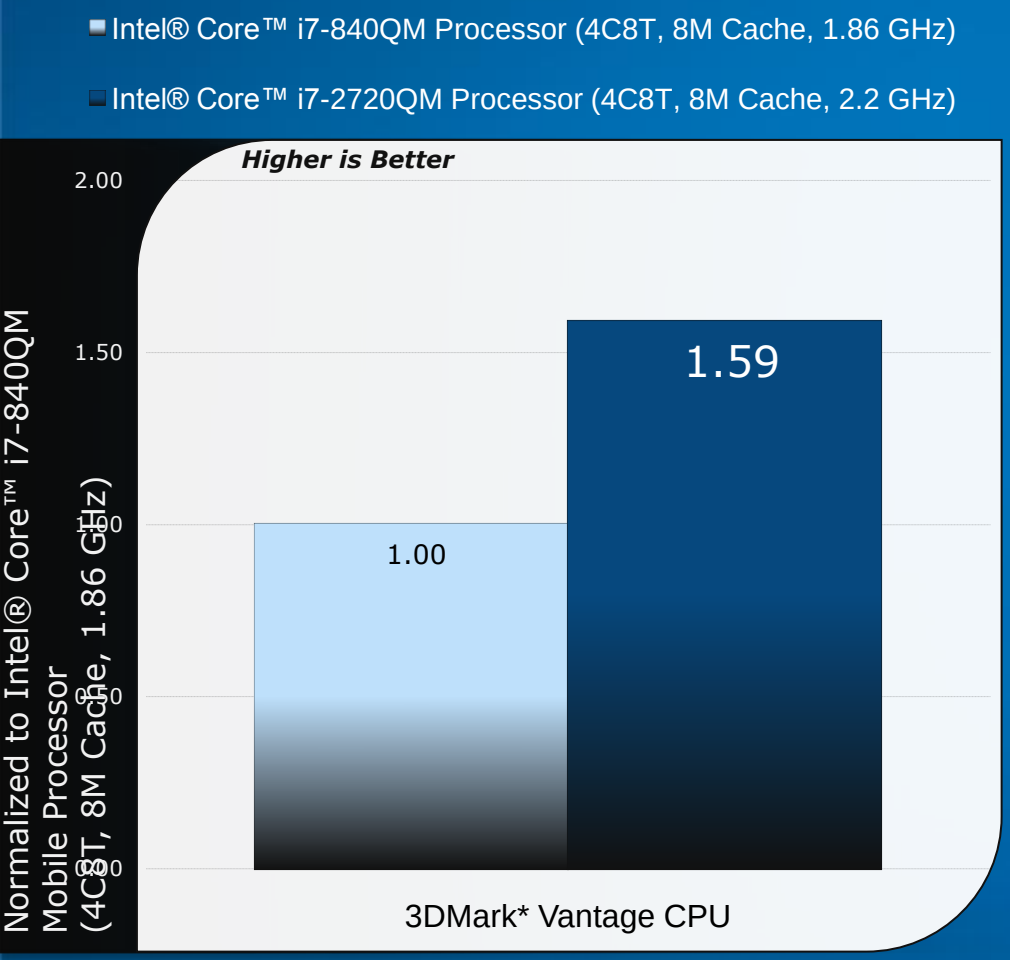


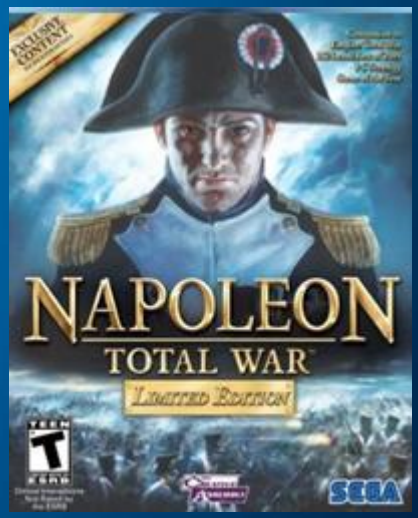
Micro-architectural Gains | **Turbo 2.0**

Accelerate your business with Intel® Core™ i7

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

The Intel® Core™ i7-2720QM Processor
3D Gaming AI & Physics





Micro-architectural Gains → **Turbo 2.0**

Great gains for threaded game engines.

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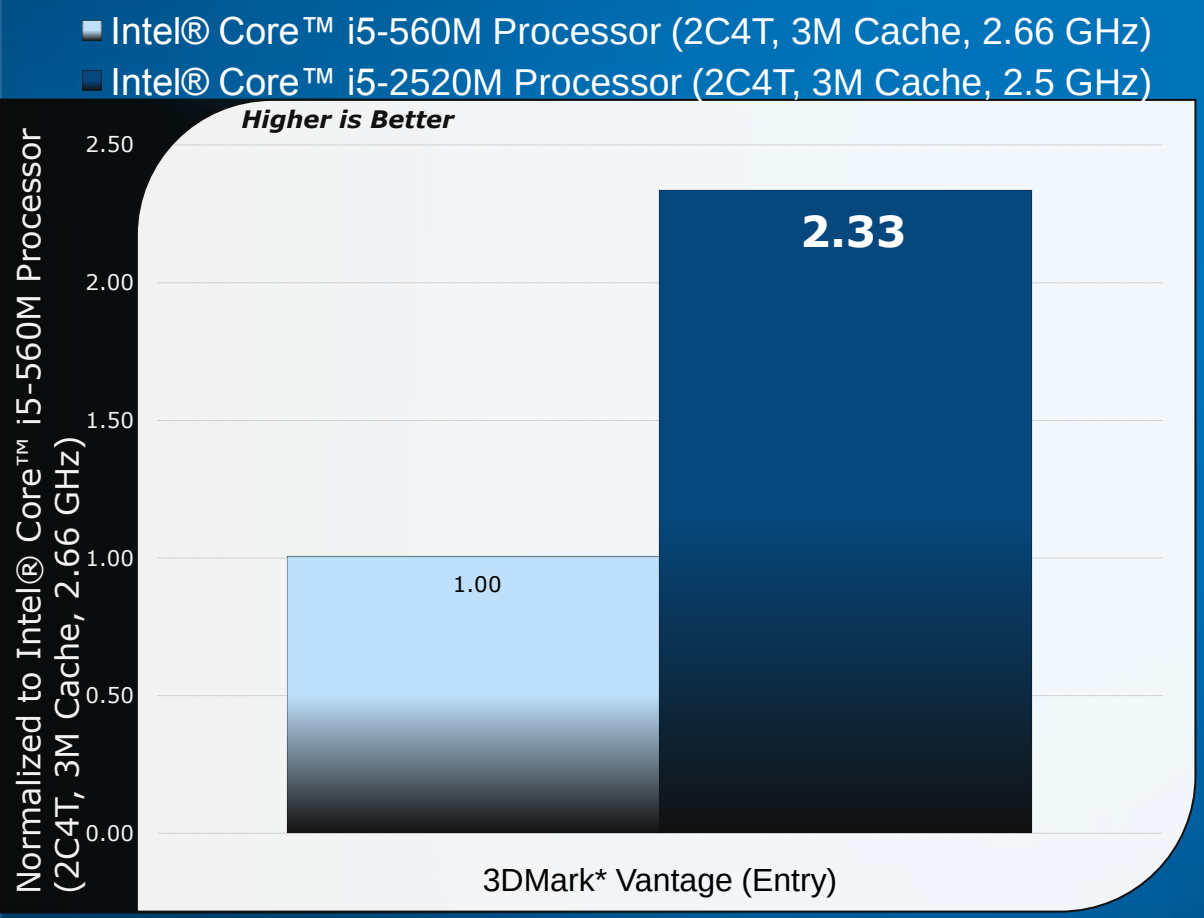
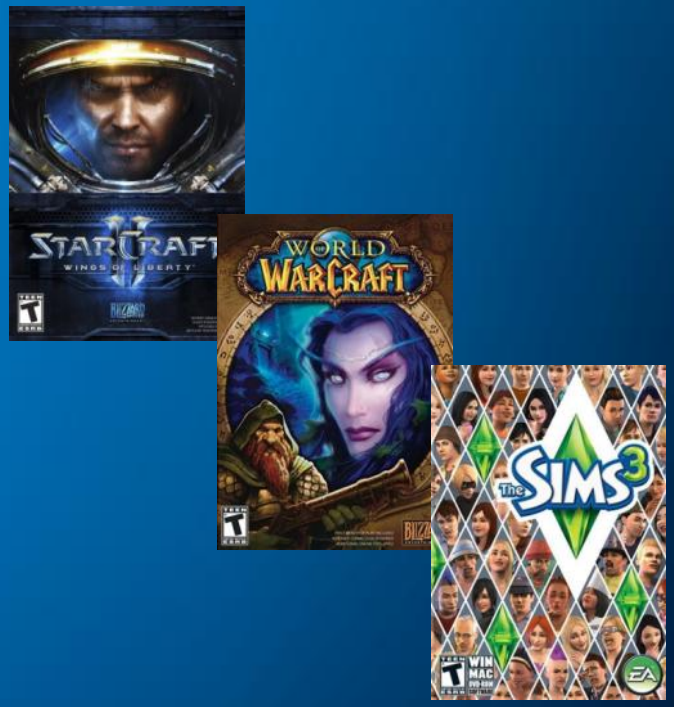
The Intel® Core™ i5-2520M Processor 3D Graphics Performance



Mainstream Gaming Fun on Titles Like:



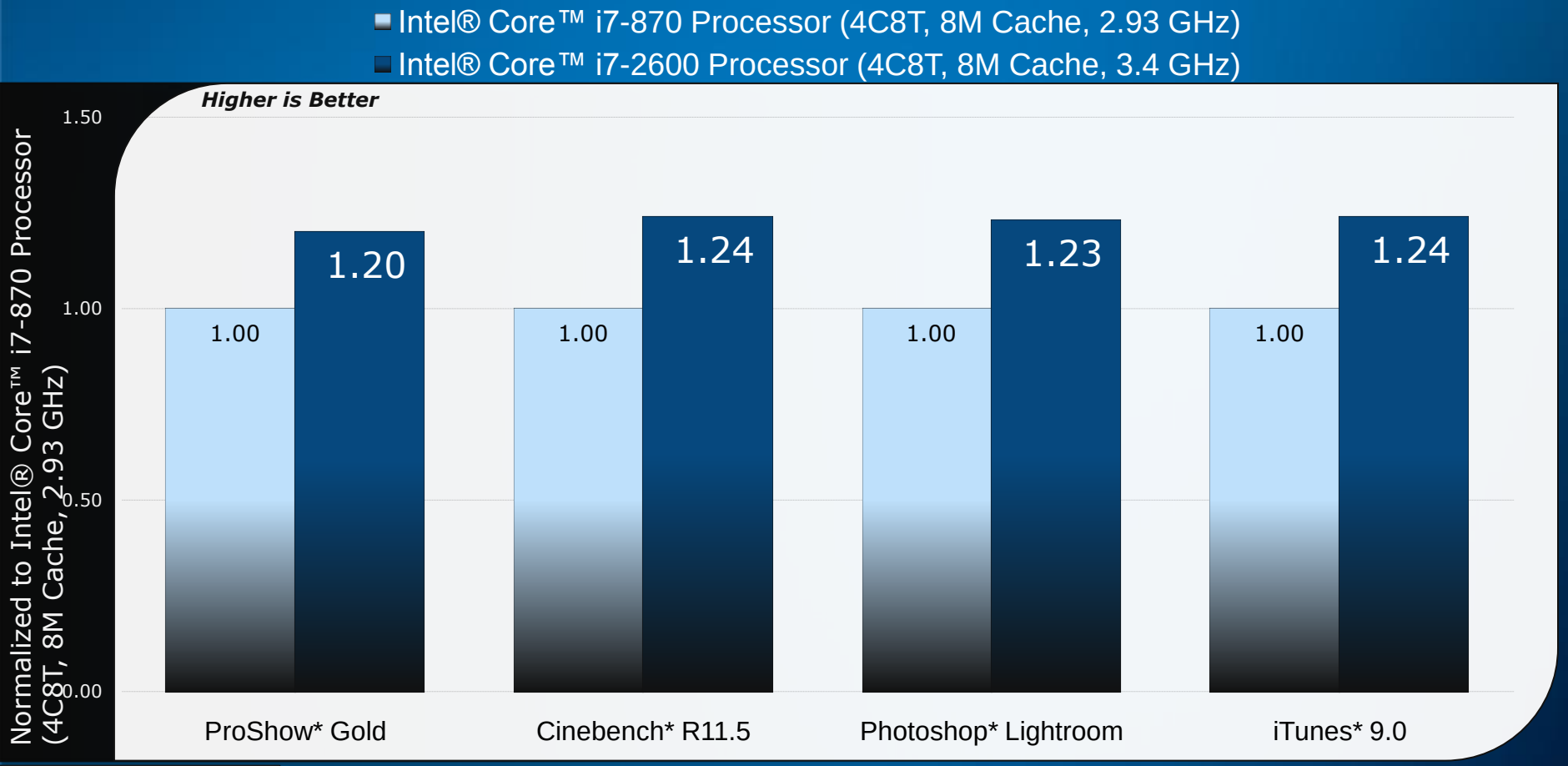
Micro-architectural Gains

HD Graphics Improvements

Huge generational gains vs. today's processor graphics.

Desktop Performance

The Intel® Core™ i7-2600 Processor Content Creation

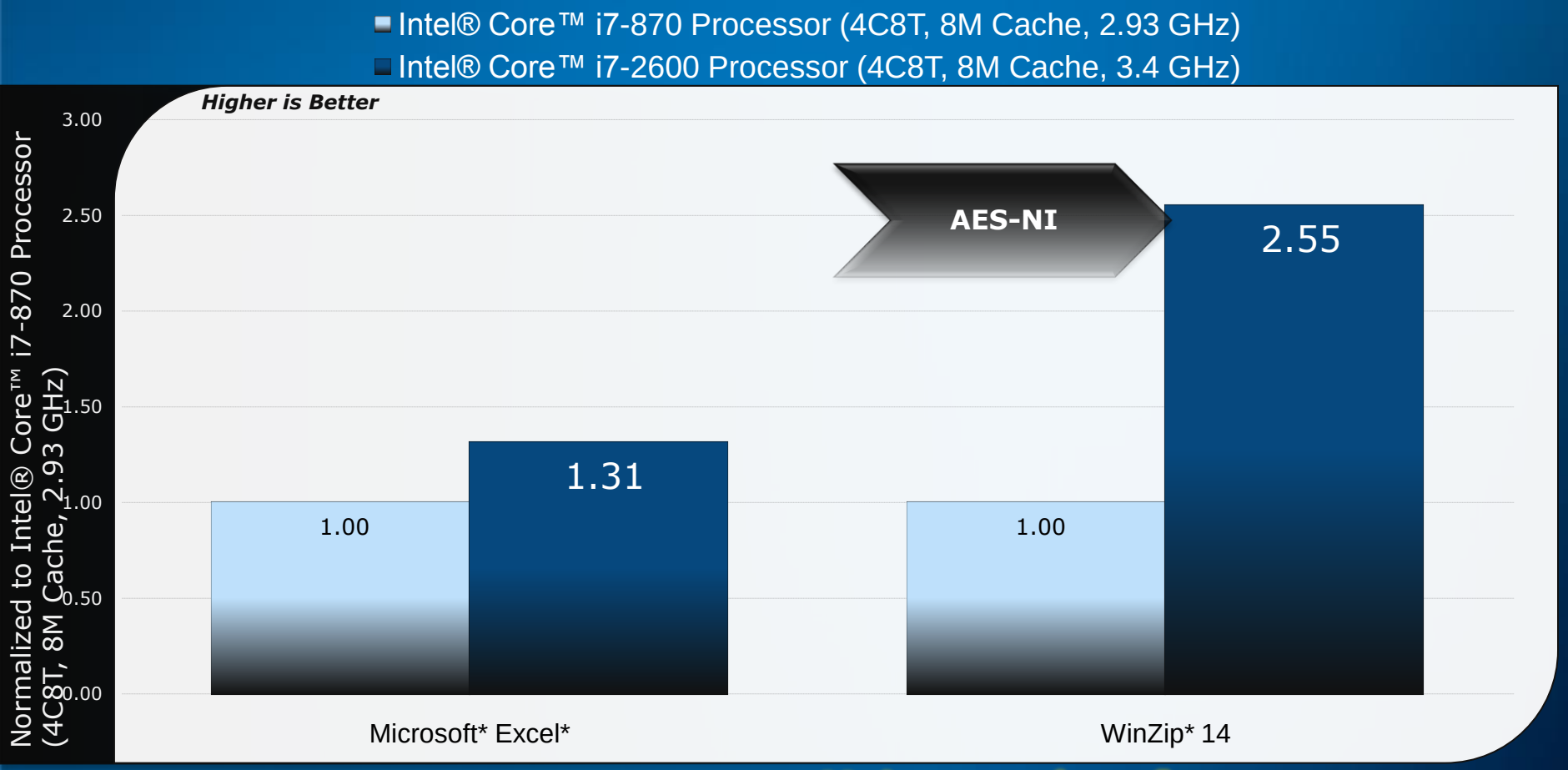


Micro-architectural Gains | **Turbo 2.0**

More time creating.
Less time waiting.

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

The Intel® Core™ i7-2600 Processor Productivity

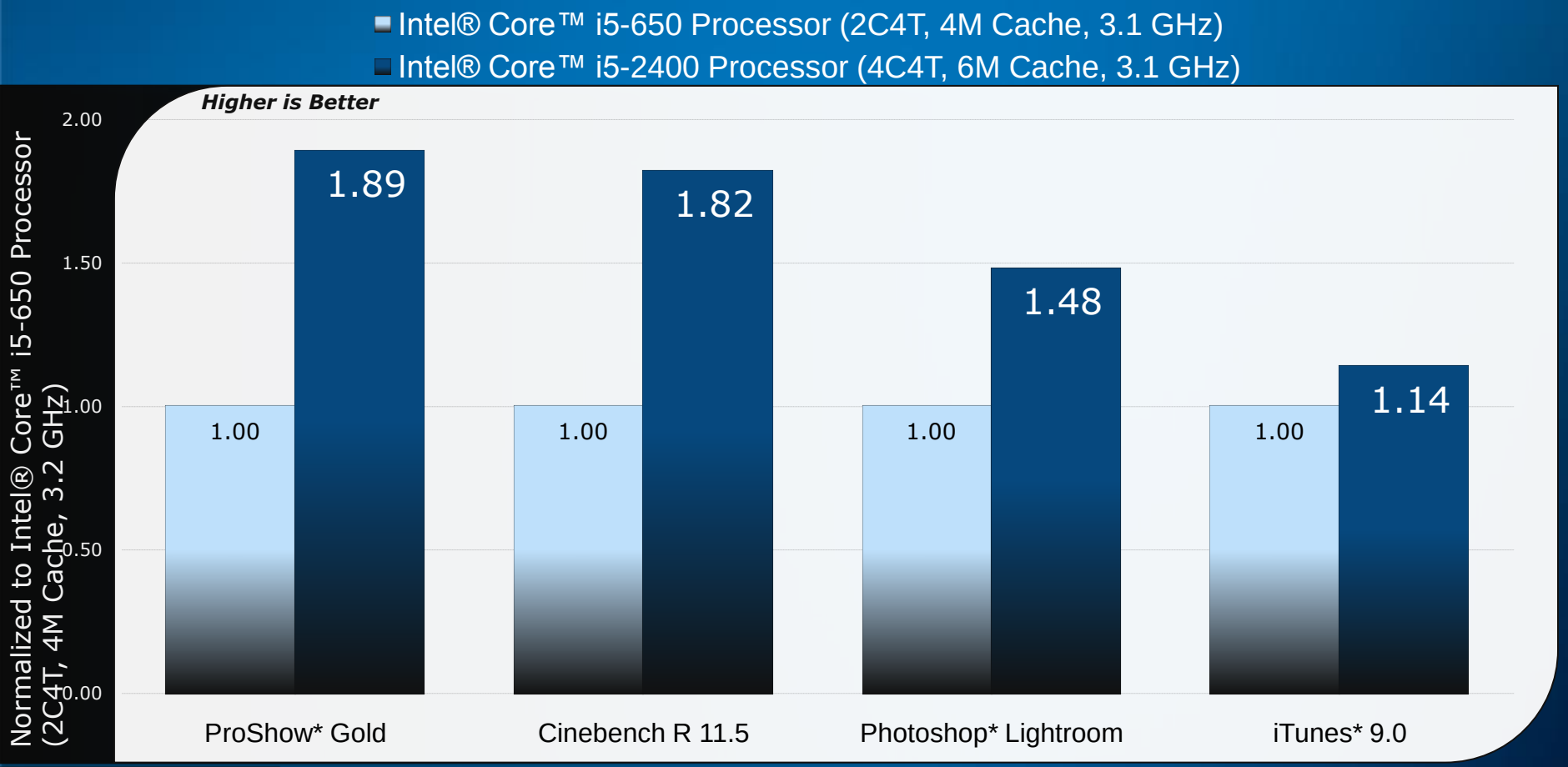


Micro-architectural Gains **Turbo 2.0**

Major speedups for business users

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

The Intel® Core™ i5-2400 Processor Content Creation

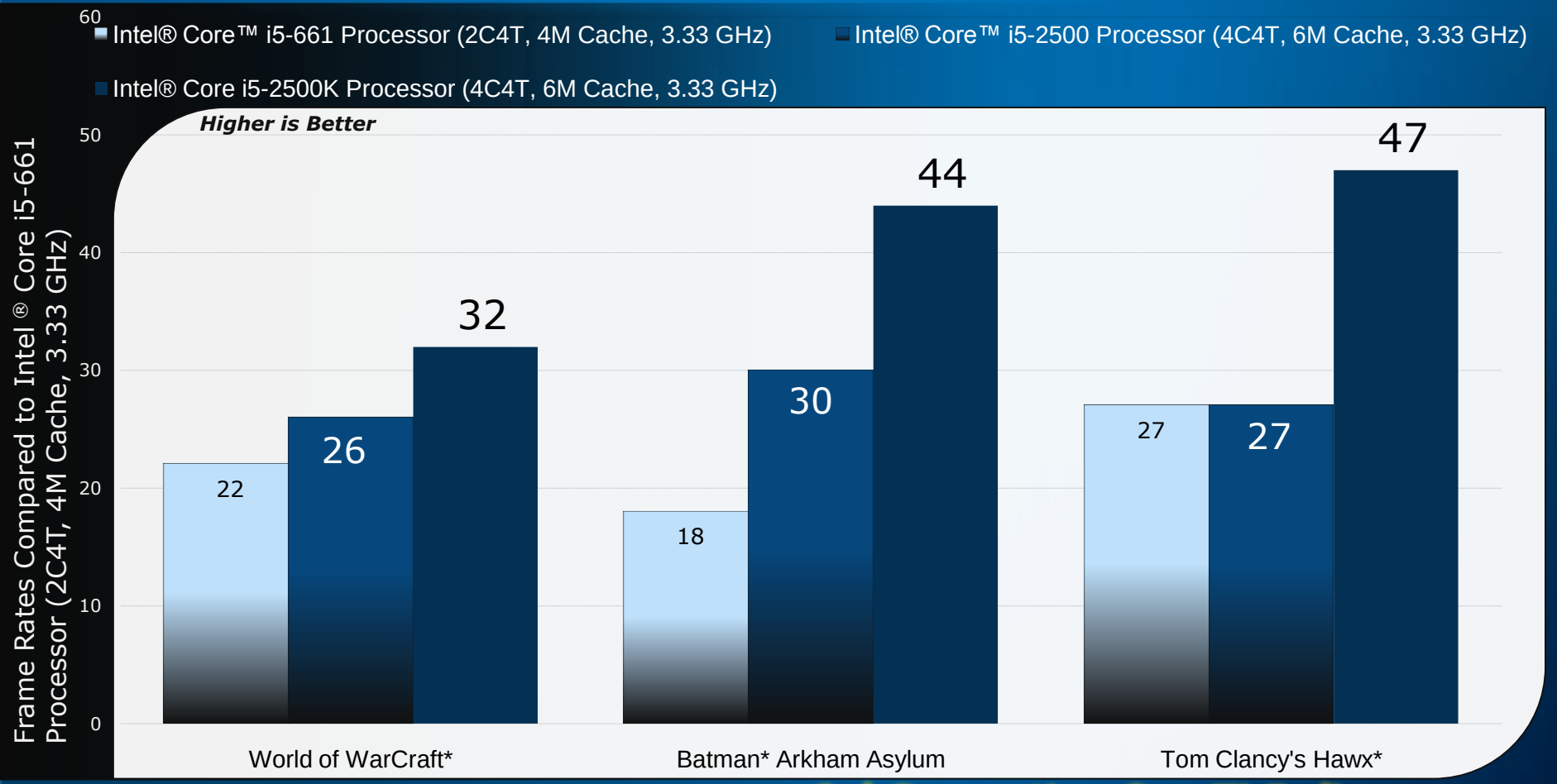


Micro-architectural Gains | **Turbo 2.0**

More time creating.
Less time waiting.

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

The Intel® Core™ i5-2500 & 2500K Processor 3D Graphics Performance



Micro-architectural Gains | **HD Graphics Improvements**

2nd Generation Core™ Delivers Mainstream Gaming Fun

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

All New 2nd Gen Intel® Core™ Mobile Processor (SV) Lineup

Brand		intel inside CORE i5	intel inside CORE i5	intel inside CORE i7	intel inside CORE i7	intel inside CORE i7	intel inside CORE i7
Processor Number		i5-2520M	i5-2540M	i7-2620M	i7-2720QM	i7-2820QM	i7-2920XM
Price		$225	$266	$346	$378	$568	$1096
TDP		35W	35W	35W	45W	45W	55W
Cores/ Threads		2/4	2/4	2/4	4/8	4/8	4/8
CPU Base Freq (GHz)		2.50	2.60	2.70	2.20	2.30	2.50
Intel® Turbo Boost Technology 2.0 Max Frequency (GHz)	SC	3.20	3.30	3.40	3.30	3.40	3.50
	DC	3.00	3.10	3.20	3.20	3.30	3.40
	QC	N/A	N/A	N/A	3.00	3.10	3.20
DDR3 (MHz)		1333MHz	1333MHz	1333MHz	1600MHz	1600MHz	1600MHz
L3 Cache		3MB	3MB	4MB	6MB	8MB	8MB
Intel® HD Graphics 3000		Yes	Yes	Yes	Yes	Yes	Yes
Gfx Base Render Frequency		650MHz	650MHz	650MHz	650MHz	650MHz	650MHz
Graphics Max Dynamic Frequency		1300MHz	1300MHz	1300MHz	1300MHz	1300MHz	1300MHz
Intel® Hyper-threading Technology		Yes	Yes	Yes	Yes	Yes	Yes
Intel® Advanced Vector Extensions (AVX)		Yes	Yes	Yes	Yes	Yes	Yes
Intel® Quick Sync Video		Yes	Yes	Yes	Yes	Yes	Yes
Intel® AES/TXT/vPro Technology		Yes	Yes	Yes	Yes	Yes	Yes
Intel® Virtualization Technology		Yes	Yes	Yes	Yes	Yes	Yes
Package		rPGA/BGA	rPGA/BGA	rPGA/BGA	rPGA/ BGA-1224*	rPGA/ BGA-1224*	rPGA

** QC BGA is a different package than DC BGA*

All New 2nd Gen Intel® Core™ Mobile Processor (SV) Lineup

		Core i3	Core i5	Core i7	Core i7
Brand					
Processor Number		i3-2310M	i5-2410M	i7-2630QM	i7-2635QM
TDP		35W	35W	45W	45W
Cores/ Threads		2/4	2/4	4/8	4/8
CPU Base Freq (GHz)		2.10	2.30	2.00	2.00
Intel® Turbo Boost Technology 2.0 Max Frequency (GHz)	SC	N/A	2.90	2.90	2.90
	DC	N/A	2.60	2.80	2.80
	QC	N/A	N/A	2.60	2.60
DDR3 (MHz)		1333MHz	1333MHz	1333MHz	1333MHz
L3 Cache		3MB	3MB	6MB	6MB
Intel® HD Graphics 3000		Yes	Yes	Yes	Yes
Gfx Base Render Frequency		650MHz	650MHz	650MHz	650MHz
Graphics Max Dynamic Frequency		1100MHz	1200MHz	1100MHz	1200MHz
Intel® Hyper-threading Technology		Yes	Yes	Yes	Yes
Intel® Advanced Vector Extensions (AVX)		Yes	Yes	Yes	Yes
Intel® Quick Sync Video		Yes	Yes	Yes	Yes
Intel® Virtualization Technology		Yes	Yes	Yes	Yes
Package		rPGA/BGA	rPGA/BGA	rPGA	BGA

** QC BGA is a different package than DC BGA*

All New 2nd Gen Intel® Core™ Mobile Processor (LV/ULV) Lineup

		intel inside CORE i5	intel inside CORE i7	intel inside CORE i7	intel inside CORE i7	intel inside CORE i7
Brand						
Processor Number		i5-2537M	i7-2617M	i7-2657M	i7-2629M	i7-2649M
Price		$250	$289	$317	$311	$346
TDP		17W	17W	17W	25W	25W
Cores/ Threads		2/4	2/4	2/4	2/4	2/4
CPU Base Freq (GHz)		1.40	1.50	1.60	2.10	2.30
Intel® Turbo Boost Technology 2.0 Max Frequency (GHz)	SC	2.30	2.60	2.70	3.00	3.20
	DC	2.00	2.30	2.40	2.70	2.90
DDR3 (MHz)		1333MHz	1333MHz	1333MHz	1333MHz	1333MHz
L3 Cache		3MB	4MB	4MB	4MB	4MB
Intel® HD Graphics 3000		Yes	Yes	Yes	Yes	Yes
Gfx Base Render Frequency		350MHz	350MHz	350MHz	500MHz	500MHz
Graphics Max Dynamic Frequency		900MHz	950MHz	1000MHz	1100MHz	1100MHz
Intel® Hyper-threading Technology		Yes	Yes	Yes	Yes	Yes
Intel® Advanced Vector Extensions (AVX)		Yes	Yes	Yes	Yes	Yes
Intel® Quick Sync Video		Yes	Yes	Yes	Yes	Yes
Intel® AES/TXT/vPro Technology		Yes	Yes	Yes	Yes	Yes
Intel® Virtualization Technology		Yes	Yes	Yes	Yes	Yes
Package		BGA-1023*	BGA- 1023*	BGA-1023*	BGA-1023*	BGA-1023*

* QC BGA is a different package than DC BGA

All New 2nd Gen Intel® Core™ Desktop Processor Lineup

Brand					
Processor Number	i5-2400	i5-2500	i5-2500K	i7-2600	i7-2600K
Price (1Ku)	$184	$205	$216	$294	$317
TDP	95W	95W	95W	95W	95W
Cores/ Threads	4/4	4/4	4/4	4/8	4/8
CPU Base Freq (GHz)	3.1	3.3	3.3	3.4	3.4
Max Turbo Freq (GHz)	3.4	3.7	3.7	3.8	3.8
DDR3 (MHz)	1333MHz	1333MHz	1333MHz	1333MHz	1333MHz
L3 Cache	6MB	6MB	6MB	8MB	8MB
Intel® HD Graphics 2000/3000	2000	2000	3000	2000	3000
Graphics Max Dynamic Frequency	up to 1100MHz	up to 1100MHz	up to 1100MHz	up to 1350MHz	up to 1350MHz
Intel® Hyper-threading Technology	No	No	No	Yes	Yes
Intel® Advanced Vector Extensions (AVX)	Yes	Yes	Yes	Yes	Yes
Intel® Quick Sync Video	Yes	Yes	Yes	Yes	Yes
Intel® vPro / TXT / VT-d / Intel® SIPP	Yes	Yes	No	Yes	No
Intel® AES-NI	Yes	Yes	Yes	Yes	Yes
Intel® Virtualization Technology	Yes	Yes	Yes	Yes	Yes
Package	LGA-1155	LGA-1155	LGA-1155	LGA-1155	LGA-1155

All New 2nd Gen Intel® Core™ Desktop Processor Lineup

Brand			
Processor Number	i3-2100	i3-2120	i5-2300
Price (1Ku)	$117	$138	$177
TDP	65W	65W	95W
Cores/ Threads	2/4	2/4	4/4
CPU Base Freq (GHz)	3.1	3.3	2.8
Max Turbo Freq (GHz)	N/A	N/A	3.1
DDR3 (MHz)	1333MHz	1333MHz	1333MHz
L3 Cache	3MB	3MB	6MB
Intel® HD Graphics 2000	2000	2000	2000
Graphics Max Dynamic Frequency	up to 1100MHz	up to 1100MHz	up to 1100MHz
Intel® Hyper-threading Technology	Yes	Yes	No
Intel® Advanced Vector Extensions (AVX)	Yes	Yes	Yes
Intel® Quick Sync Video	Yes	Yes	Yes
Intel® vPro / TXT / VT-d / Intel® SIPP	No	No	No
Intel® AES-NI	No	No	Yes
Intel® Virtualization Technology	Yes	Yes	Yes
Package	LGA-1155	LGA-1155	LGA-1155

All New 2nd Gen Intel® Core™ Desktop Processor Lineup

Low Power / Lifestyle

Brand	Core i3	Core i5	Core i5	Core i5	Core i5	Core i7
Processor Number	i3-2100T	i5-2390T	i5-2400S	i5-2500T	i5-2500S	i7-2600S
Price (1Ku)						
TDP	35W	35W	65W	45W	65W	65W
Cores/ Threads	2/4	2/4	4/4	4/4	4/4	4/8
CPU Base Freq (GHz)	2.5	2.7	2.5	2.3	2.7	2.8
Max Turbo Freq (GHz)	n/a	3.5	3.3	3.3	3.7	3.8
DDR3 (MHz)	1333MHz	1333MHz	1333MHz	1333MHz	1333MHz	1333MHz
L3 Cache	3MB	3MB	6MB	6MB	6MB	8MB
Intel® HD Graphics 2000/3000	2000	2000	2000	2000	2000	2000
Graphics Max Dynamic Frequency	Up to 1100MHz	Up to 1100MHz	Up to 1100MHz	Up to 1250MHz	Up to 1100MHz	Up to 1350MHz
Intel® Hyper-threading Technology	Yes	Yes	No	No	No	Yes
Intel® Advanced Vector Extensions (AVX)	Yes	Yes	Yes	Yes	Yes	Yes
Intel® Quick Sync Video	Yes	Yes	Yes	Yes	Yes	Yes
Intel® vPro / TXT / VT-d / Intel® SIPP	No	Yes	Yes	Yes	Yes	Yes
Intel® AES-NI	No	Yes	Yes	Yes	Yes	Yes
Intel® Virtualization Technology	Yes	Yes	Yes	Yes	Yes	Yes
Package	LGA-1155	LGA-1155	LGA-1155	LGA-1155	LGA-1155	LGA-1155

Summary

2nd Generation Intel® Core™ Processor Family: Visibly Smart

Incredible Performance and Responsiveness

- New Core Micro-architecture - Higher Performance & Lower Power
- Unquestioned energy-efficient performance leadership
- Optimized performance with Intel Turbo Boost Technology 2.0 and Intel® HT Technology
- New Intel® AVX instructions for better floating point intensive application performance

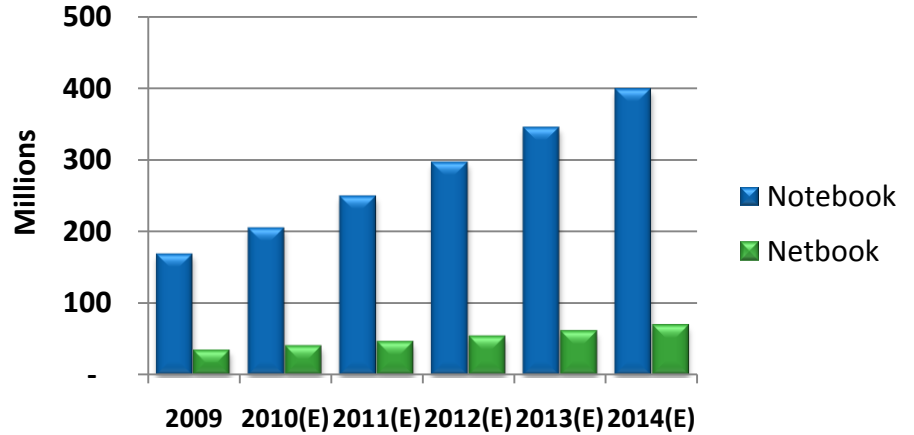
Fantastic Visuals and Graphics Capabilities

- Great media processing for faster video editing and sharing
- Enthusiast class HD video playback with next-generation picture quality
- Great mainstream and casual gaming experience

Backup

Mobile PC Market Segment Overview

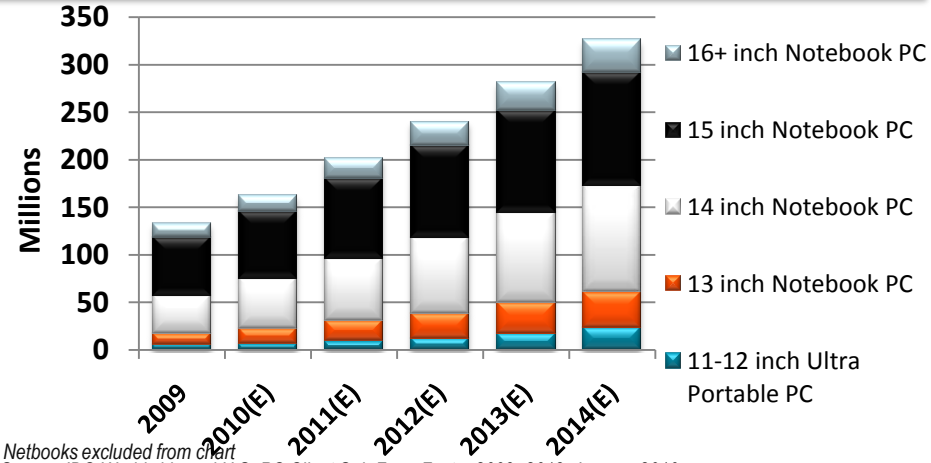
Worldwide Mobile Client Forecast



Source: IDC Worldwide and U.S. PC Client Sub Form Factor 2007-2014, March 2010

Continuing strong growth in Mobile client segment for both Notebooks and Netbooks

Mobile PC Form Factor Trends

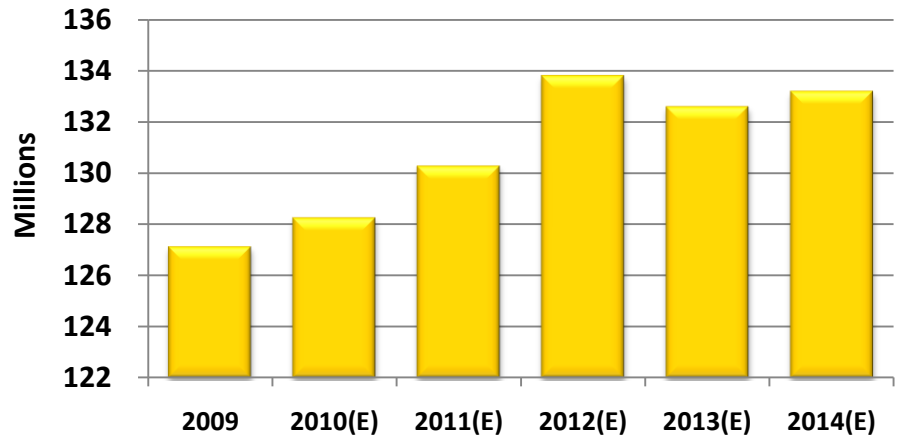


Netbooks excluded from chart
Source: IDC Worldwide and U.S. PC Client Sub Form Factor 2009–2013, January 2010

Continued growth in Ultra-thin/portable PCs

Desktop PC Market Segment Overview

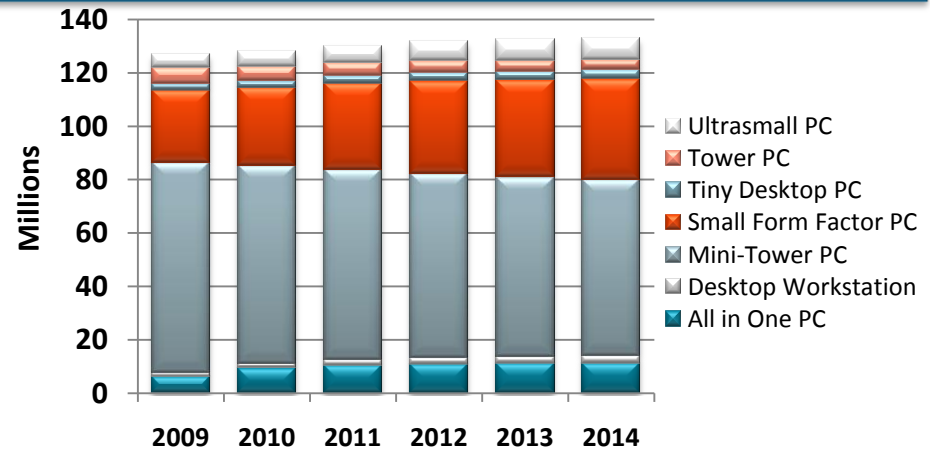
Desktop Client Forecast



Source: IDC Worldwide and U.S. PC Client Sub Form Factor 2007-2014, March 2010

Continued growth in Desktop client segment

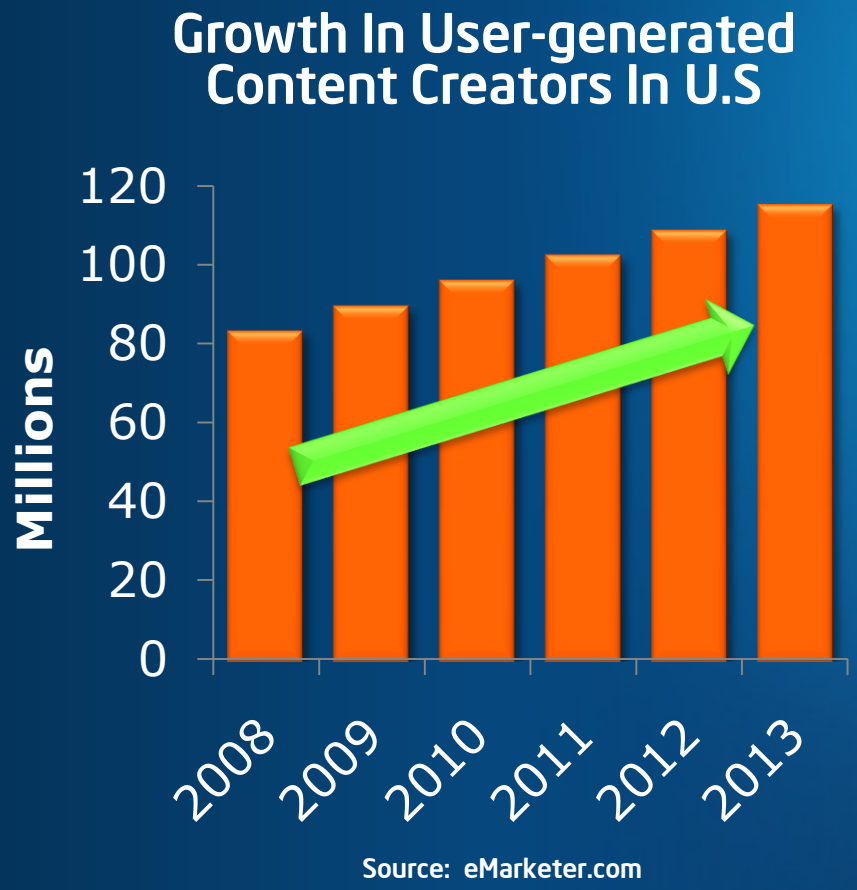
Desktop PC Form Factor Trends



Source: IDC Worldwide and U.S. PC Client Sub Form Factor 2009–2013, January 2010

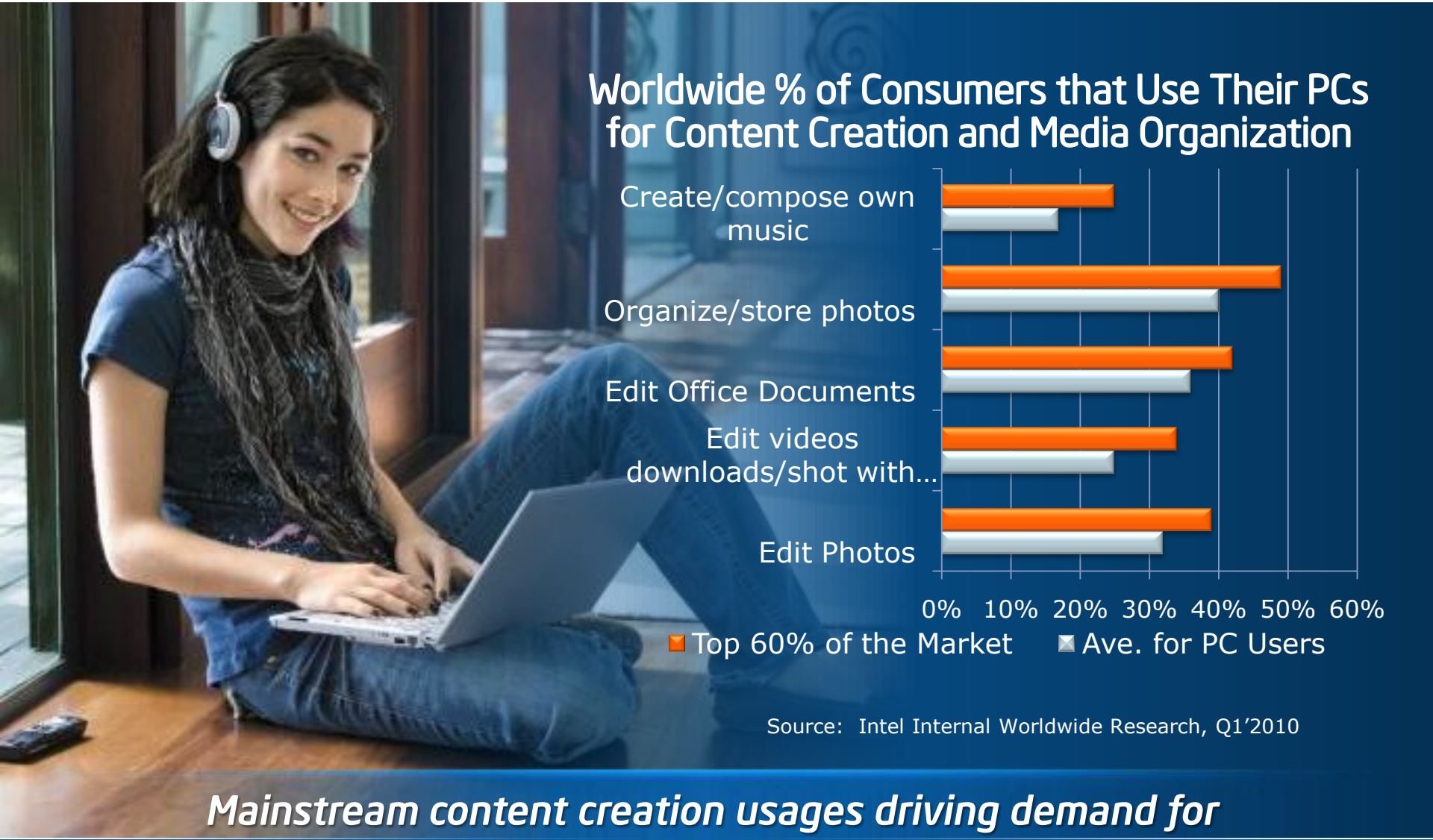
Traditional DT systems being replaced by smaller form factor designs

Consumer Content Creation Going Mainstream



The Internet and Social Networking are driving Consumer Content Creation from Niche to the Mainstream

Mainstream Content Creation and Media Usages

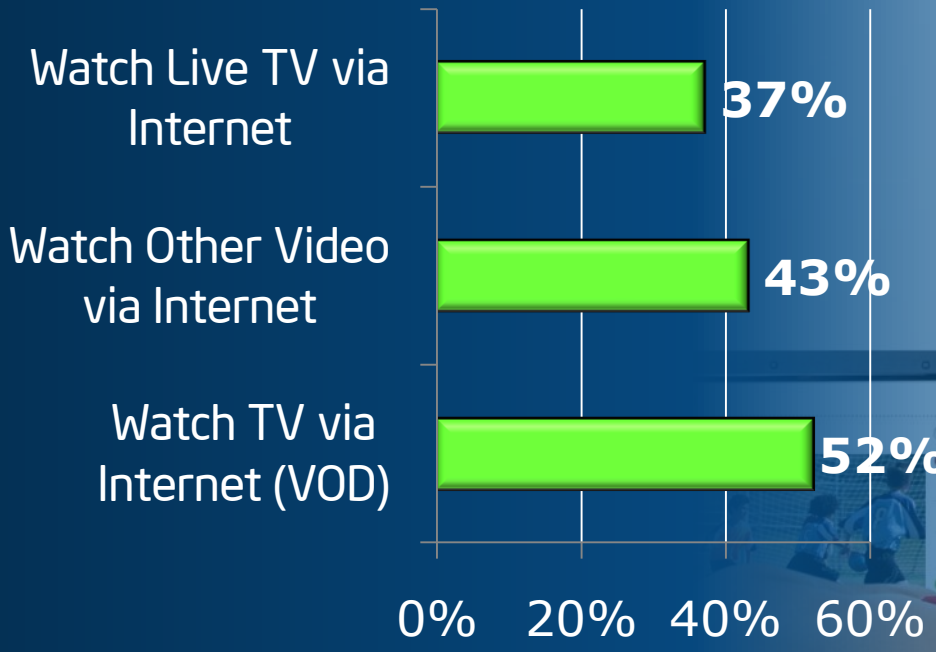


Source: Intel Internal Worldwide Research, Q1'2010

Mainstream content creation usages driving demand for mainstream performance

Mainstream Media Consumption

Worldwide Average % of PC End-Users that Consume Media

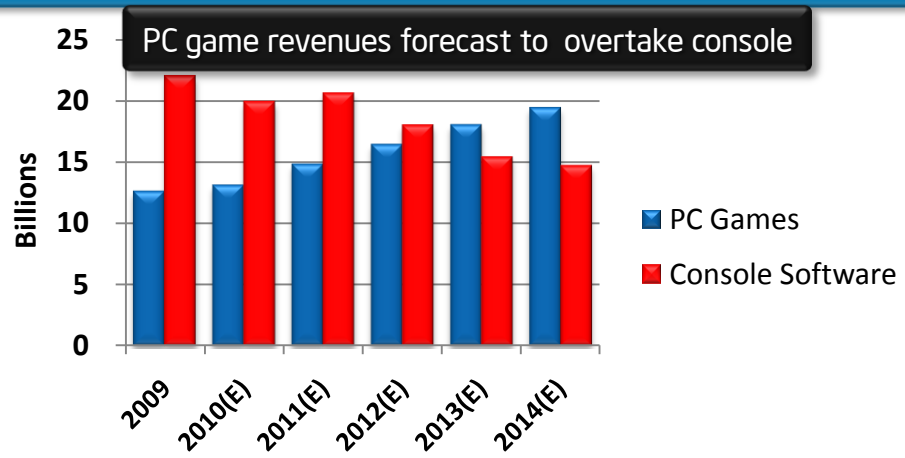


Source: Intel Internal Worldwide Research, Q4'2009

Evolving media consumption usages driving demand for mainstream performance and media capabilities

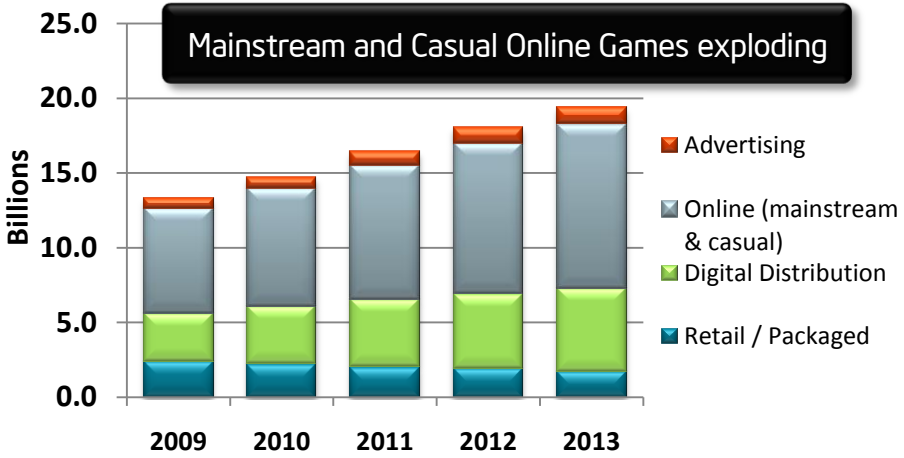
PC Gaming Segment Overview

Worldwide PC & Console Gaming Forecast



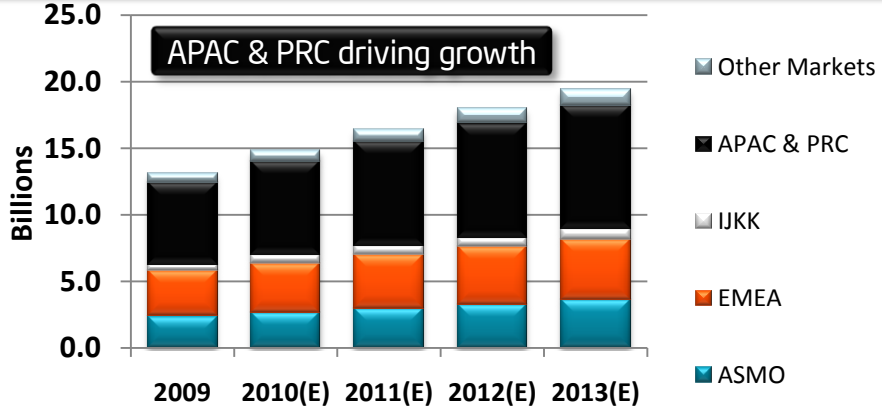
Source: DFC and PC Gaming Alliance Horizons Software Report , March 2010

Growth trends by game segment



Source: DFC and PC Gaming Alliance Horizons Software Report, March 2010

WW PC Game Revenues by GEO



Source: DFC and PC Gaming Alliance Horizons Software Report , March 2010

- Online Game (mainstream and casual game revenues continue dramatic growth for next three years)
- Digital Distribution continues rapid growth while it replaces retail DVDROM sales.

Mobile Platform Roadmap

	Calpella (2010)			Huron River (2011)		
Processor & Graphics 	Clarksfield QC Discrete Gfx	Arrandale DC Integrated Gfx	Arrandale LV & ULV Integrated Gfx	Sandy Bridge QC Integrated Gfx	Sandy Bridge DC Integrated Gfx	Sandy Bridge LV & ULV Integrated Gfx
Platform Controller Hub (PCH) 	Ibex Peak PCH		Ibex Peak SFF PCH	Cougar Point PCH		Cougar Point SFF and ULV PCH
Wireless LAN WiMAX 	Kilmer Peak WiMAX/Wi-Fi combo Puma Peak Wi-Fi Condor Peak Wi-Fi			Kilmer/Kelsey Peak WiMAX/Wi-Fi combo Crane/Condor/Taylor/Puma Peak Wi-Fi Crane/Rainbow Peak Wi-Fi + BT combos		
LAN 	Hanksville GbE LAN			Lewisville GbE LAN		

2nd Gen Intel® Core Processor Platforms for Mobile and Desktop

Mobile Platform Components
(Code named, "Huron River")

Desktop Platform Components
(Code named, "Sugar Bay")

2nd Gen Intel® Core™ Processor

Intel's first 32nm monolithic CPU with processor graphics for visibly smart performance

Intel ® 6 Series Chipset

Supporting new levels of entertainment and security

Intel ® Centrino® Advanced N WiFi + WiMAX

Dual Band WiFi with compelling WiMAX capabilities

All products, dates, and programs are based on current expectations and subject to change without notice.
1: Disclaimer details in backup

Overclocking Feature Alignment for 2nd Generation Intel® Core™ Processors (DT)

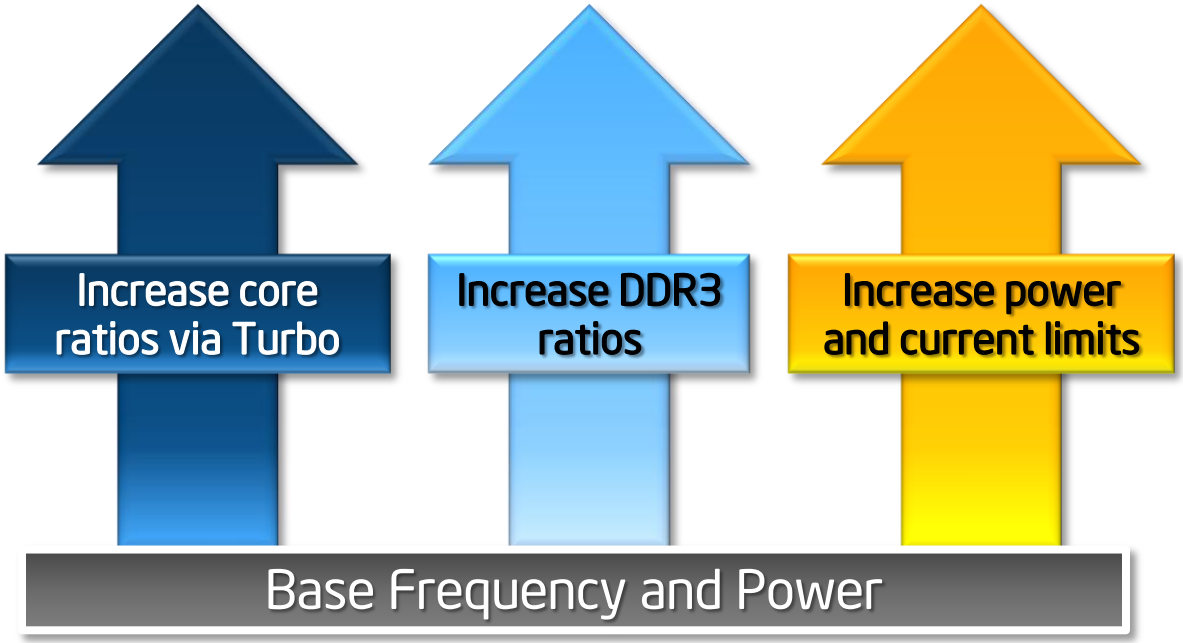
Overclocking capabilities

Intel® Core™ i7-2600K Intel® Core™ i5-2500K processors	Intel® Core™ i7-2600, Intel® Core™ i5-25xx, 24xx, 23xx processors	
• Fully Unlocked Core • Unlocked Power • Unlocked Memory	• Limited Unlocked Core • Unlocked Power • Unlocked Memory	Requires Intel® P67 Express Chipset
• Unlocked Processor Graphics	• Unlocked Processor Graphics	Requires Intel® H67 Express Chipset

Overclocking feature and platform segmentation aligns with customer demand and usage model behavior

Unlocked 2nd Gen Intel® Core™ Processors (DT)

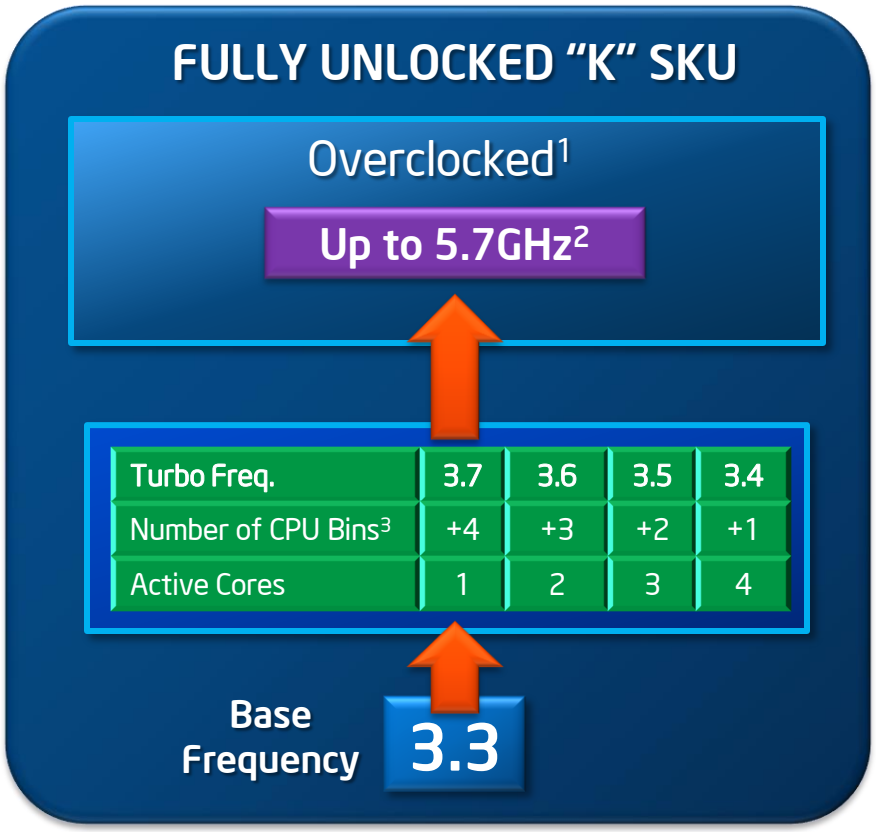
Unlocked processors deliver the most **flexible** overclocking experience!

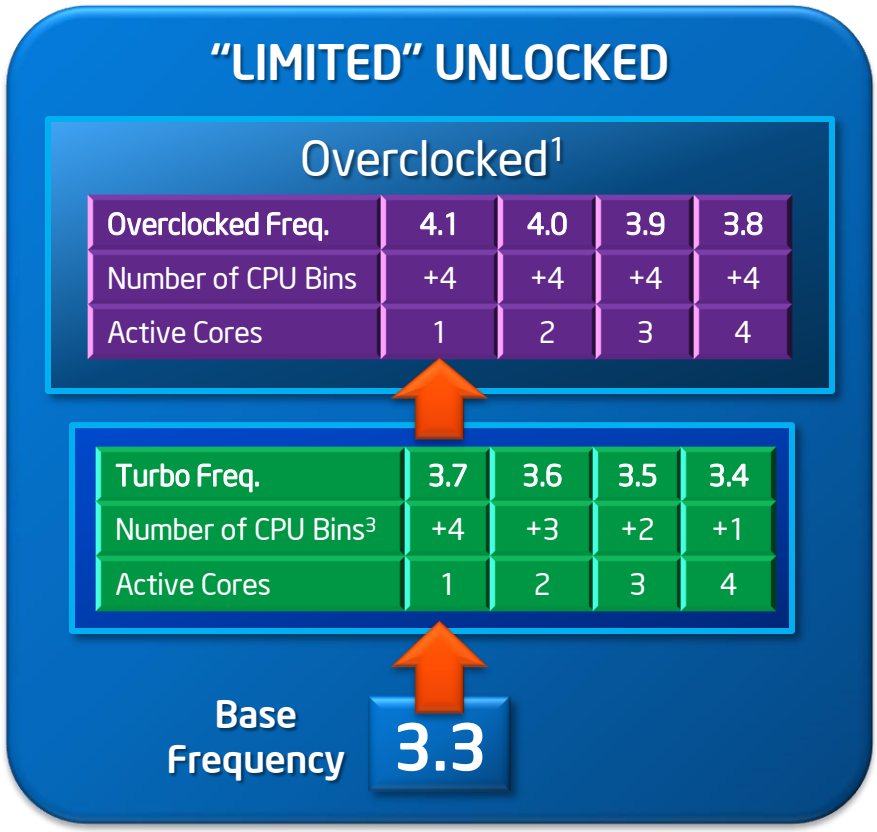


Improve your ability to achieve high core and memory frequencies by *independently* raising your clock speeds without impacting other system components

Unlocked Intel® Core™ processors: Amazing Overclocking Flexibility!

Fully Unlocked vs. "Limited" Unlocked Core





- Limited unlocked feature of 2nd Gen Intel® Core™ Processors enables **4 CPU bins** above highest turbo frequency when overclocking[1]
- All non-"K" versions of 2nd Generation Intel® Core™ i7 and Core™ i5 processors have a limited unlocked multiplier; memory, power and graphics are fully unlocked.

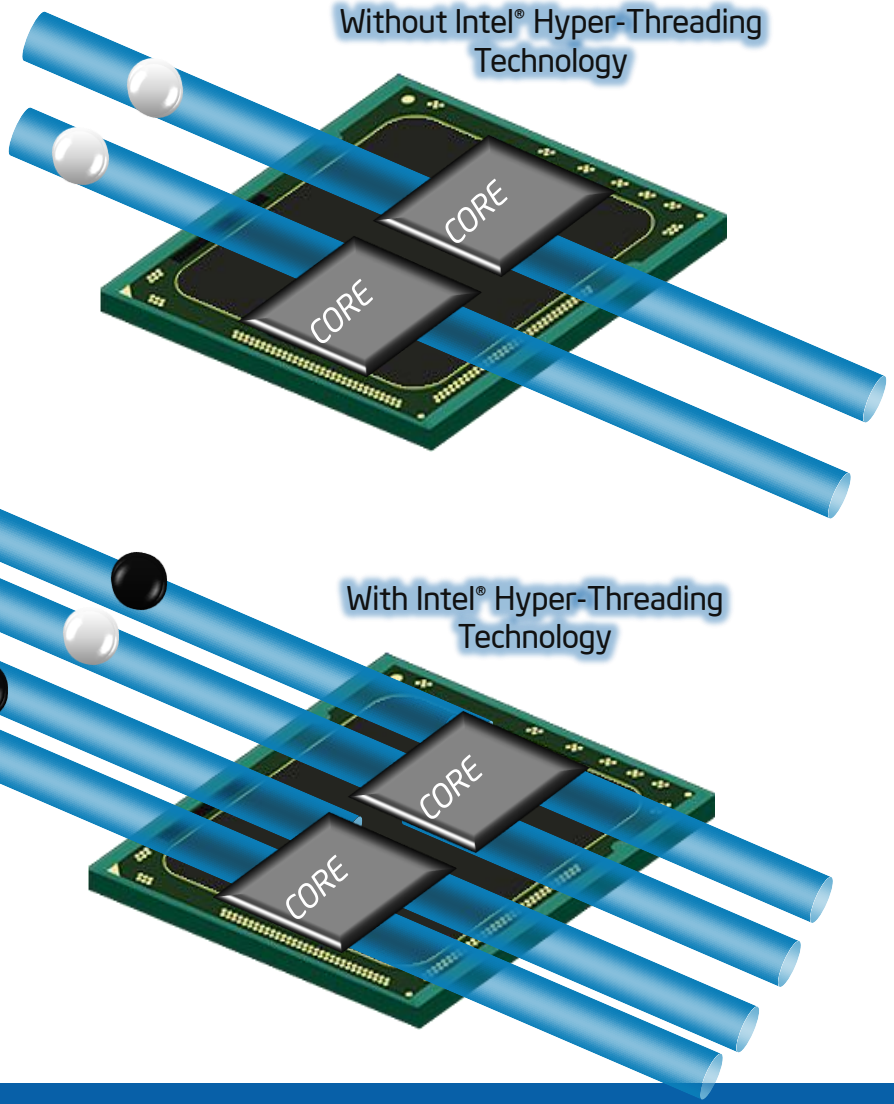
Example shown above: Intel® Core™ i5-2500K vs Intel® Core™ i5-2500

[1] Intel® P67 Express Chipset required for core overclocking 2nd Generation Intel® Core™ i7 and i5 desktop processors.

[2] Ratio 57 limit defined by the microarchitecture; other limitations reaching this ratio may apply (e.g. power and thermals, etc..)

[3] One CPU Bin equals 100MHz

Intel® Hyper-Threading Technology



What is it?

- Intel® Hyper-Threading Technology enables each processor core to run two tasks at the same time
- Two thread engines per core, enabling 4-way processing in dual core systems and 8-way processing in quad core systems
- Available with the new Intel® Core™ family of processors

Benefits for consumers

- More threads and smart multitasking equals better performance
- Faster response time = less waiting

Intel® Quick Sync Video

Syncing

- Convert your videos from your PC to your portable media player blazingly fast

Editing

- Edit your camcorder and personal videos faster

Sharing

- Convert your videos faster for online sharing

Burning

- Burn home video content on a DVD/BD disc to store or share with family and friends

Breakthrough Media Processing for Incredibly fast Editing and Sharing

Seamless Visual Experience:
Intel® Quick Sync Video

Create & Edit

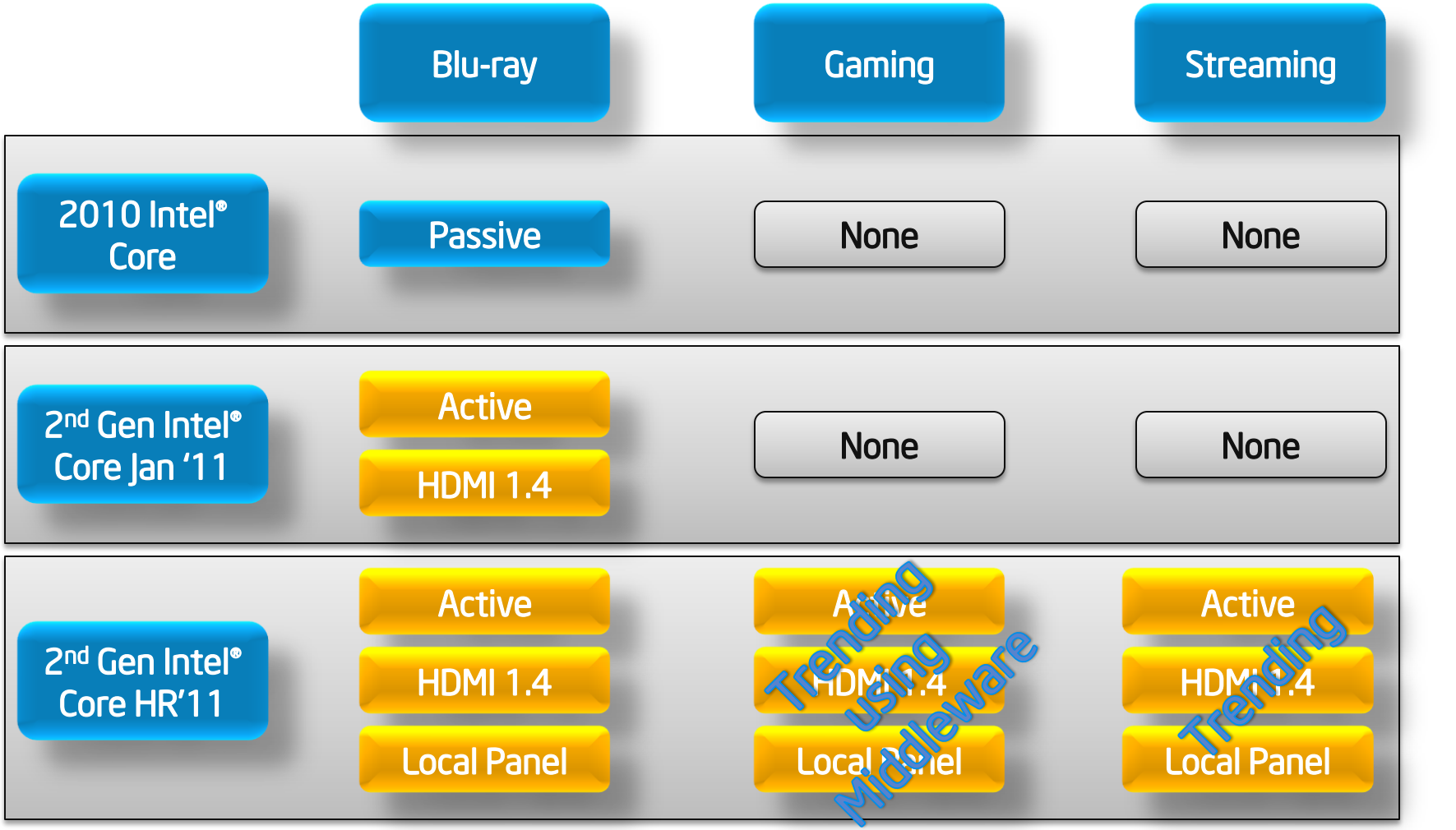
Edit your camcorder and personal videos faster and create your own home movies

Sync & Share

Convert your videos blazingly fast for syncing them from your PC to your mobile player or sharing them online

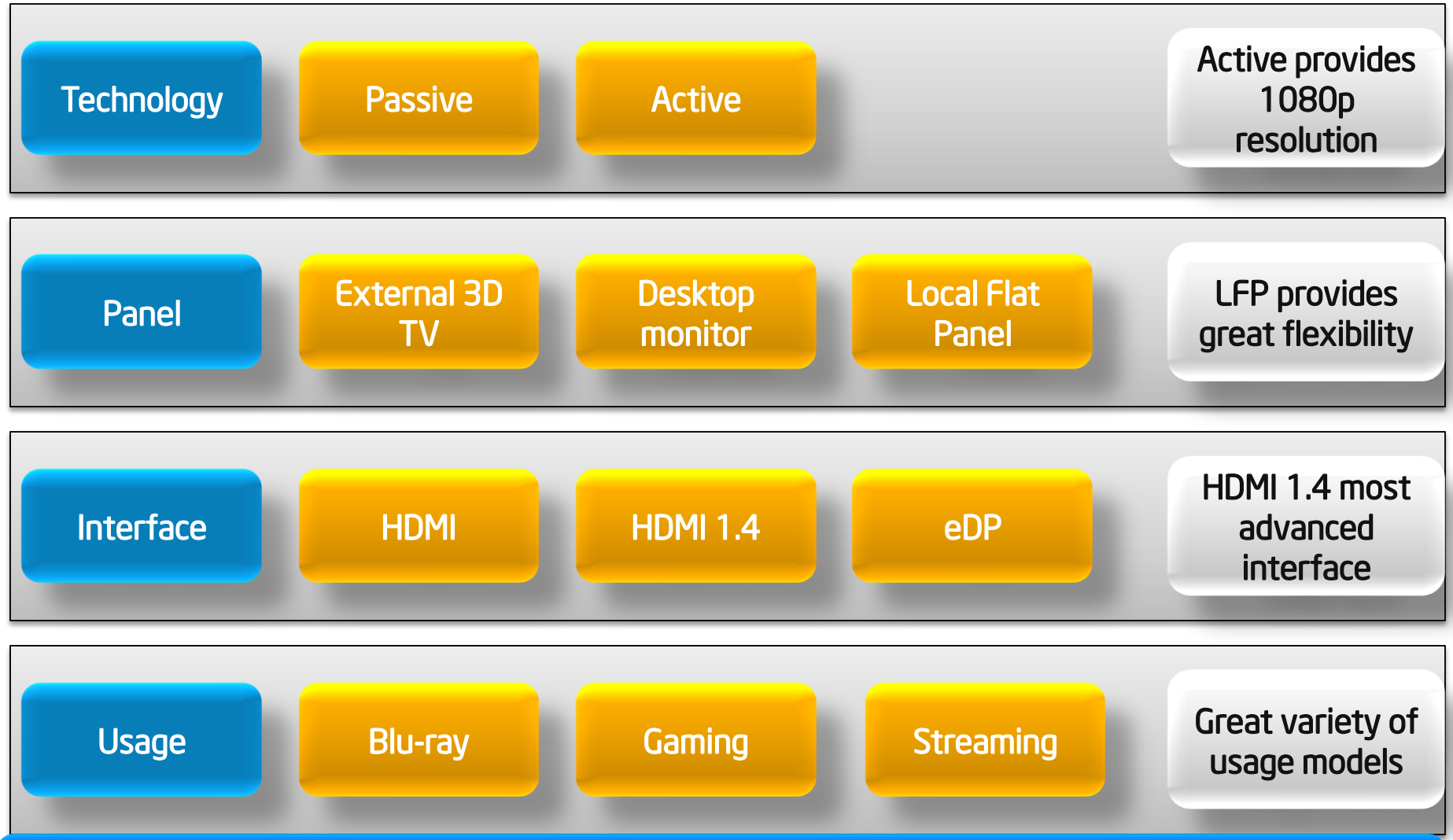
Breakthrough Media Processing for incredibly fast Editing and Sharing

Intel® InTru™ 3D Key Features



2nd Gen Intel® Core provides support for the most advanced Stereoscopic 3D capabilities

Key Elements of Stereo 3D Technology



Active technology on HDMI 1.4 interface provides full 1080p resolution

Mobile - SNB Smart Visual Features

	INTEL® QUICK SYNC VIDEO	INTEL® INTRU 3D	INTEL® CLEAR VIDEO HD TECHNOLOGY	INTEL® HD GRAPHICS	INTEL® ADVANCED VECTOR EXTENSIONS (AVX)
					
intel inside CORE i7 Best	✓	✓	✓	Intel HD Graphics 3000	✓
intel inside CORE i5 Better	✓	✓	✓	Intel HD Graphics 3000	✓
intel inside CORE i3 Good	✓	✓	✓	Intel HD Graphics 3000	✓
intel Pentium inside Value			Partial	Intel HD Graphics	

New Smart Visual Features Built Into Every 2nd Generation Intel® Core™ Processor

Desktop - SNB Smart Visual Features

	INTEL® QUICK SYNC VIDEO	INTEL® INTRU 3D	INTEL® CLEAR VIDEO HD TECHNOLOGY	INTEL® HD GRAPHICS	INTEL® ADVANCED VECTOR EXTENSIONS (AVX)
					
Best	✓	✓	✓	i7-2600K Intel HD Graphics 3000 Intel HD Graphics 2000	✓
Better	✓	✓	✓	i5-2500K Intel HD Graphics 3000 Intel HD Graphics 2000	✓
Good	✓	✓	✓	Intel HD Graphics 2000	✓
Value			Partial	Intel HD Graphics	

New Smart Visual Features Built Into Every 2nd Generation Intel® Core™ Processor

Sampling of ISV Engagements For 2nd Generation Intel® Core™ Processor Family

Intel is engaged with the top ISVs for popular consumer usages:

- **Video editing, video conversion, DVD authoring**
- **Audio & Digital photography**
- **Gaming**

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

Intel® My WiFi Technology
(Optional Platform Feature)

What is it?

- Wireless Personal Area Network (WiFi PAN) for your PC.
- Directly connect up to (8) WiFi Certified[1] devices
- Supported by all Intel® Centrino® Wireless Adapters
- Supports Intel® Wireless Display
- Easy to use "My WiFi" GUI
- Supports Microsoft Internet Connection Sharing
- Delivers 54Mb/s speed over 100 meters

Benefits for consumers

- Connect your WiFi enabled devices anywhere anytime.
- Wirelessly sync your content through enabled applications like *Syncables.*
- Support for new Wi-Fi Direct™ Standard for easy WiFi PAN connectivity for new devices.
- WiFi devices can include: Headphones, Speakers, Security Cameras, Digital Still Cameras, Video Cameras, Handsets, WiFi VoIP Phones, WiFi Toys, Printers…

Connect your Wi-Fi enabled Smartphone and other devices with Intel® My WiFi Technology

All products, dates, and programs are based on current expectations and subject to change without notice.
1. WiFi Certification from the WiFi Alliance

Intel® Anti-Theft Technology 3.0
(Optional Platform Feature)

Intel processor based system with Intel® Anti-Theft Technology for added security and laptop protection

COMPUTRACE® LOJACK® FOR LAPTOPS

What is it?

- Hardware-based security building blocks to protect your PC when it is lost or stolen
- When a loss is reported, your theft management service provider can remotely lock the PC via a "poison pill" over the internet[1]
  - PC can be locked even if the OS is reinstalled or PC is disconnected from the network
  - Once recovered, the PC can be easily unlocked via a local password or a server-generated code
  - Now supporting 3G and WiMAX connections

Benefits for consumers[1]

- **Protection:** HW-based capabilities improve asset and data security and offer higher tamper-resistance
- **Deterrence:** As the PC becomes inoperable, Intel AT-enabled solutions can be a deterrent for thieves
- **Non-Destructive:** When returned, the PC can be easily reactivated without any loss of data

Strengthen security with Intel® Anti-Theft Technology

[1] Requires a service provider hosted service or an ISV solution enabled with Intel AT for functionality. For more information see dislaimer #.....

All New 2nd Generation Intel® Core™ Processors
Features & Benefits

Feature	Description
Intel Microarchitecture	▪ Efficient monolithic die spanning dual & quad core CPUs ▪ Energy-efficient architecture
Processor Graphics	▪ Full integration of Graphics core into the CPU ▪ Seamless visual experience – Fantastic media processing for faster editing, sharing and syncing. Support for HDMI 1.4 Stereoscopic 3D and Intel ® Wireless Display. ▪ Improved graphics performance comparable to entry level discrete cards
Intel® Turbo Boost Technology 2.0	▪ Intel® Turbo Boost Technology 2.0 maximizes performance within defined thermal envelope with support for Dynamic Range Frequency limits ▪ Sandy Bridge Graphics with Dynamic Frequency delivers graphics performance boost to graphics intensive applications
Intel® Hyper-Threading Technology[2]	▪ Multi-tasking - More paths for data to flow through each core. The more threads you have, the more tasks you can execute at the same time. ▪ Do more with less wait time
Up to 8Mb Shared Intel® Smart Cache	▪ Last Level Cache (LLC) Shared between CPU and Graphics for better performance ▪ Faster access to your data by enabling dynamic and efficient allocation of cache
Integrated memory controller (IMC) – 2ch DDR3, up to 1600	▪ Improves performance with lower latency & higher memory bandwidth for data intensive applications
Halogen Free*	▪ Support for Halogen free component packages

Intel® 6 Series Chipset Family Features

Feature	Description
Serial ATA (SATA) 6 Gb/s support	High-speed storage interface supports faster transfer rate for improved data access with up to 2 SATA 6Gb/sports. SATA 6 Gb/s doubles the transfer speed from SATA II to provide up to 600MB/s data speed to eliminate bottlenecks found with current external storage solutions.
Intel® Rapid Storage Technology	With additional hard drives added, provides quicker access to digital photo, video and data files with RAID 0, 5, and 10, and greater data protection against a HDD failure with RAID 1, 5, and 10. Intel Rapid Storage Technology 10.0 adds the Zero Power ODD, an extended battery life capability. Zero Power ODD provides the ability to completely shut down power to an ODD when it is not in use. Without this capability, ODDs continue to draw approximately 100-160mW of power even when not in use.
Support for HDMI v1.4, DisplayPort* and DVI	HDMI v1.4 provides support for Stereo 3D and delivers uncompressed HD video and uncompressed multi-channel audio in a single cable, supporting all HD formats including 720p, 1080i and 1080p. This chipset also supports the DisplayPort* interface with up to 2560 x 1600 resolution.
PCI Express/DMI 2.0 interface	PCIe 2.0 standard doubles the per-lane throughput from the PCIe 1.0 standard's 2.5 GT/s to 5 GT/s. PCIe2 provides faster signaling for high-bandwidth applications such as Graphics PCIe cards.
Intel® High Definition Audio	Integrated audio support enables premium digital surround sound and delivers advanced features such as multiple audio streams and jack re-tasking.
Intel ® Flexible Display Interface	An innovative path for two independently controlled channels of integrated graphics display data to be transported to the Intel® 6 Series Chipset.
Universal Serial Bus (USB) 2.0	Hi-Speed USB 2.0, provides greater enhancement in performance with a design data rate of up to 480 megabits per second (Mbps) with up to 14 USB 2.0 Ports.
Intel® Active Management Technology 7.0	This technology enables IT to reduce IT costs and increase efficiency in supporting end customers PCs when technical assistance is required, even when the OS, network software, or applications are not functioning.

Intel® 6 Series Chipset Family: Mobile SKU Comparison

Feature	Enhanced QM67	Small Form Factor[5] QS67	Storage HM67	Base HM65	Low Power UM67[7]
Application Segment	Corporate / SMB	SFF Best	Consumer / SMB Better	Consumer /SMB Good	Consumer / SMB Best
Price	$48	$54	$48	$40	$50
Package Size	25x25mm	22x22mm	25x25mm	25x25mm	25x25mm
TDP[4]	3.9W	3.4W	3.9W	3.9W	3.4W
Halide Free	Yes	Yes	Yes	Yes	Yes
Manageability and Security	Intel® vPro-Intel® AMT 7.0[1]; Intel® Anti-Theft 3.0[1]		Intel® Anti-Theft 3.0[1]	Intel® Anti-Theft 3.0[1]	Intel® Anti-Theft 3.0[1]
Intel® Wireless Display	Yes[1]	Yes[1]	Yes[1]	Yes[1]	Yes[1]
Audio Standard (HDMI)	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio
Intel® Extreme Tuning Utility	Yes[3]	Yes	Yes	No	No
HDCP	1.5, (2.0 Post TTM)	1.5, (2.0 Post TTM)	1.5, (2.0 Post TTM)	1.5, (2.0 Post TTM)	1.5, (2.0 Post TTM)
HDMI (V1.4 with 3D)	Yes	Yes	Yes	Yes	Yes
SDVO Out	Yes	Yes	Yes	Yes	Yes
Display Port	Yes	Yes	Yes	Yes	Yes
LVDS	Yes	Yes	Yes	Yes	Yes
VGA	Yes	Yes	Yes	Yes	Yes
DVI	Yes	Yes	Yes	Yes	Yes
PAVP	Yes	Yes	Yes	Yes	Yes
Dual Display Options	Concurrent/Simultaneous				
Intel® RST AHCI Driver Only	Yes	Yes	Yes	Yes	Yes
Intel® RST + RAID (0,1,5,10) [6] with Intel® RRT	Yes	Yes	Yes	No	No
SATA	6	6	6	6	6
SATA 6 GB/s	2	2	2	2	2
USB	14	14	14	12	14
PCI Express I/O Ports	8	8	8	8	8
Integrated LAN MAC + 10/100 Ethernet or HPNA, GBE	Yes	Yes	Yes	Yes	Yes
POR FIRMWARE	5MB	5MB	1.5MB	1.5MB	1.5MB

Note 1: Available with Core Intel processors only
Note 3: Available with Extreme Edition Intel processors only
Note 4: TDP estimates are targets. Actual results may vary .
Note 5: Requires an HDI board
Note 6: RAID 5, 10 not supported on QS67
Note 7: The Intel UM67 Express Chipset functionality requires a LV or ULV CPU

Intel® AMT = Intel® Active Management Technology
Intel® RST = Intel® Rapid Storage Technology
Intel® RRT = Intel® Rapid Recovery Technology

Intel® 6 Series Chipset Family: Desktop SKU Comparison

	Q67	B65	H67	P67
Segment	Corporate	SMB	Consumer	Consumer
Socket	LGA 1155	LGA 1155	LGA 1155	LGA 1155
Memory channels / DIMM per channel	2 / 2	2 / 2	2 / 2	2 / 2
USB2.0	14	12	14	14
SATA Total (Max number of 6Gb/s)	6 (2)	6 (1)	6 (2)	6 (2)
PCIe 2.0	8	8	8	8
PCI	Yes	Yes	No	No
Integrated Display	2	2	2	n/a
Performance Tuning	No	No	No	Yes
Content Protection	PAVP	PAVP	PAVP	n/a
Intel® RST 10	Yes	AHCI HW/SW	Yes	Yes
Intel® InTru™ 3D	Yes	Yes	Yes	No

Legal Notices and Important Information
Regarding the performance measurements in this presentation

differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_numbers for details.

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

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Disclaimer for Intel® Anti-Theft Technology

No computer system can provide absolute security under all conditions. Intel® Anti-Theft Technology (Intel® AT) for PC protection (also referred to as the 'poison pill' in some documents) requires the computer system to have an Intel AT-enabled chipset, BIOS, firmware release, software and an Intel AT-capable Service Provider/ISV application and service subscription. Intel AT (PC Protection) performs the encrypted data access disable by preventing access to or deleting cryptographic material (e.g. encryption keys) required to access previously encrypted data. ISV-provided Intel-AT-capable encryption software may store this cryptographic material in the PC's chipset. In order to restore access to data when the system is recovered, this cryptographic material must be escrowed/backed up in advance in a separate device or server provided by the security ISV/service provider. The detection (triggers), response (actions), and recovery mechanisms only work after the Intel AT functionality has been activated and configured. The activation process requires an enrollment procedure in order to obtain a license from an authorized security vendor/service provider for each PC or batch of PCs. Activation also requires setup and configuration by the purchaser or service provider and may require scripting with the console. Certain functionality may not be offered by some ISVs or service providers. Certain functionality may not be available in all countries. Intel assumes no liability for lost or stolen data and/or systems or any other damages resulting thereof.

Intel® Turbo Boost Technology

Disclaimer:

Intel® Turbo Boost Technology (Intel® TBT) requires a PC with a processor with Intel TBT capability. Intel TBT performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel TBT.

See http://www.Intel.com/technology/turboboost for more information.

System Configurations

Intel® Core™ i7-2600 Processor: (4C8T, 3.4GHz, 8MB cache), Intel Reference Board, Micron* 4GB (2x2GB) (DDR3-1333), Seagate* 1 TB SATA2, Intel ® HD2000 Graphics, Driver: 8.15.10.1.2185, (BIOS:v.35, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i7-870 Processor: (4C8T 2.93GHz,8MB cache], Intel DP55KG, Bios: 4905, Micron* 4 GB(2x2GB) (DDR3-1333), Seagate* 1 TB, nVidia* 9400GT Driver: 197.45(BIOS:, Intel v.9.1.1.1020), Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i5-2400 Processor: (4C4T, 3.1GHz, 6MB cache, Intel Reference Board, Micron* 4GB (2x2GB) (DDR3-1333), Seagate* 1 TB SATA2, Intel ® HD2000 Graphics, Driver: 8.15.10.1.2185, (BIOS:v.35, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i5-2500K Processor: (4C4T, 3.3GHz, 6MB cache, Intel Reference Board, Micron* 4GB (2x2GB) (DDR3-1333), Seagate* 1 TB SATA2, Intel ® HD2000 Graphics, Driver: 8.15.10.1.2185, (BIOS:v.35, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i5-650 processor (4MB Cache, 3.20 GHz) , Intel® Desktop Board DH57JG, (BIOS: 0537, Intel® INF 9.1.1.1007, Memory: Micron* 4GB (2x2GB) DDR3-1333, Graphics: Intel® HD Graphics, Driver: 2141, HardDrive: Seagate* 1TB HDD 7200RPM, Imon compliant with VRD 11.1 requirements), Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i7-2720QM Processor: (4C8T, 2.2GHz, 6MB cache), Intel Reference Board, Micron* 4GB (2x2GB) (DDR3-1333), Hitachi* 300 GB SATA2, Intel ® HD3000 Graphics, Driver: 8.15.10.1.2185, (BIOS:v.35, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i5-2520M Processor: (2C4T, 2.5GHz, 3MB cache), Intel Reference Board, Micron* 4GB (2x2GB) (DDR3-1333), Hitachi* 300 GB SATA2, Intel ® HD3000 Graphics, Driver: 8.15.10.1.2185, (BIOS:v.35, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i5-560M Processor: (2C4T, 2.66GHz, 3MB cache), Intel Reference Board, Micron* 4GB (2x2GB) (DDR3-1333), Hitachi* 300 GB SATA2, Intel ® HD3000 Graphics, Driver: 8.15.10.1.2185, (BIOS: American Megatrends ACLPCRB1.86C.107.B00.1007090850, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/

Desktop System Configurations & Workload Description

Intel® Core™ i5-2400 Processor: (4C4T, 3.1GHz, 6MB cache [Turbo 1-2-3-4] Intel Los Lunas CRB, Micron* 4GB (2x2GB) (DDR3-1333), Seagate* 1 TB SATA2, Intel® HD2000 Graphics, Driver: 8.15.10.1.2185, (BIOS:v.35, Intel v.9.2.0.1009) , Microsoft* Windows* 7 Ultimate 64-bit

Intel® Core™ i5-650 processor (4MB Cache, 3.20 GHz) , Intel® Desktop Board DH57JG, (BIOS: 0537, Intel® INF 9.1.1.1007, Memory: Micron* 4GB (2x2GB) DDR3-1333, Graphics: Intel® HD Graphics, Driver: 2141, HardDrive: Seagate* 1TB HDD 7200RPM, Imon compliant with VRD 11.1 requirements), Microsoft* Windows* 7 Ultimate 64-bit

HD Media: HD Video transcode performance as measured by a pre-release version of CyberLink* MediaShow* Espresso which uses Intel Quick Synch Video technology. This workload converts a 720p video clip from a MinoHD* handheld HD camcorder, and prepares it for playback on an Apple* iPod* portable media player.

Performance tests and ratings are measured using specific computer systems and / or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit http://www.intel.com/performance/