

AMD CONNECTS COMMERCIAL

AMD INSPIRES  
INNOVATION  
EVERYWHERE.

The world's top companies count on AMD.

# AMD INSPIRES INNOVATION EVERYWHERE.

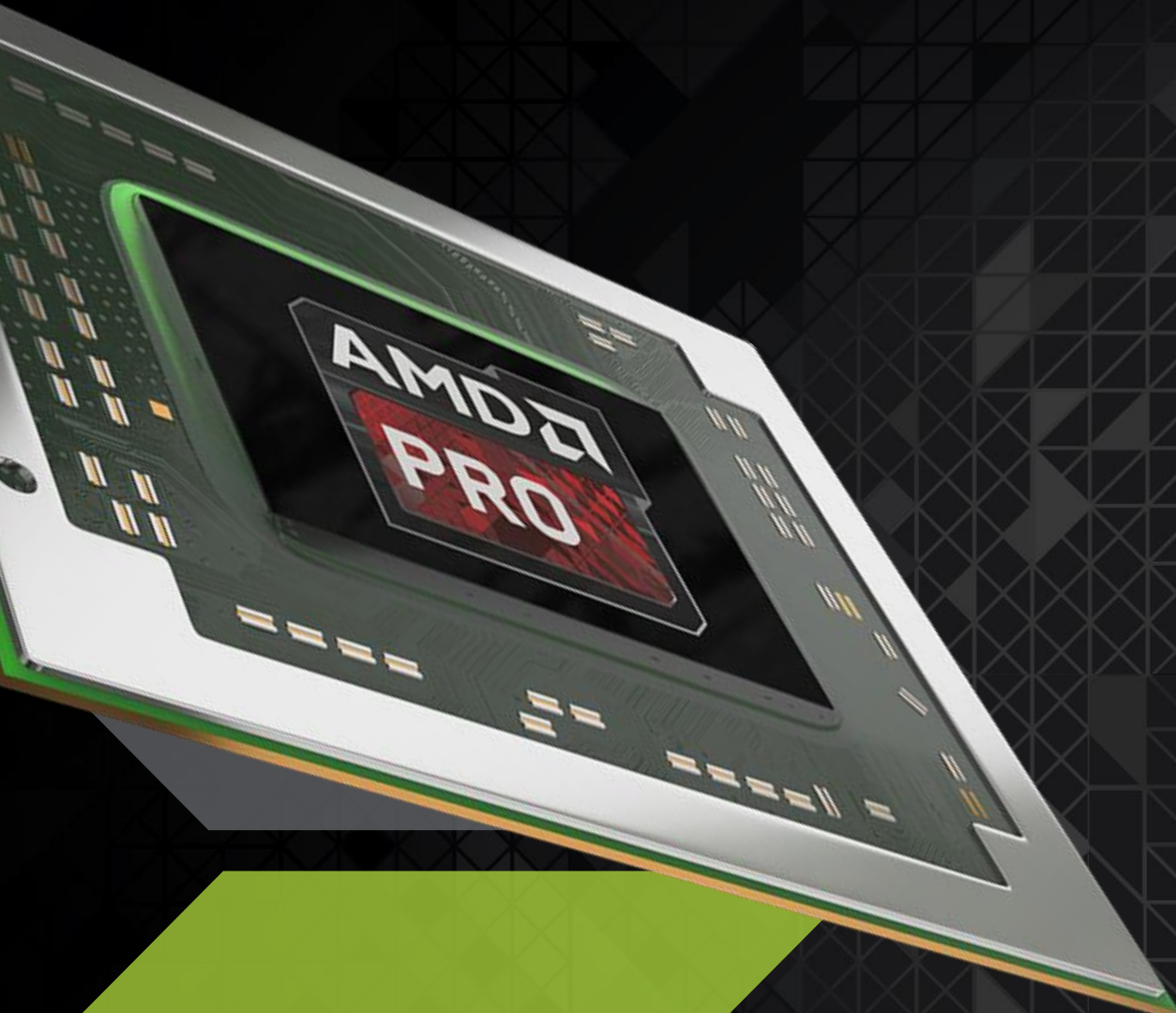
The world's top companies count on AMD.

## AGENDA

- INTRODUCTION
- ROADMAP 2016-17
- AMD DASH
- WINDOWS 7 SUPPORT
- REFERENCES & CASE STUDIES







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For more than 47 years, AMD has driven innovation in high-performance computing, graphics, and visualization technologies — *the building blocks for gaming, immersive platforms, and the datacenter.*

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Hundreds of millions of consumers, leading Fortune 500 businesses, and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work, and play.

## INNOVATION

AMD PIONEERS TECHNOLOGY INNOVATIONS WITH 47 YEARS OF HISTORY

1 GHz Barrier

64-bit x86

Native Dual-Core & Quad-Core x86

Creation of the APU

X86 Quad-Core SoC

## FLAGSHIP

AMD POWERS FLAGSHIP PLATFORMS AS A TECH LEADER



## ENTERPRISE AND PUBLIC

AMD IS ON THE DESK OF EMPLOYEES WORLDWIDE INCLUDING FORTUNE 500 COMPANIES





**WE'RE  
IN  
YOUR  
HEAD.**

*Only AMD powers all major VR platforms.*



HTC Vive



Oculus Rift



PlayStation VR

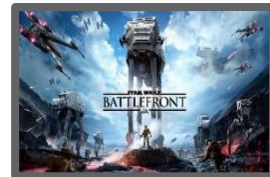
**WE'RE  
IN  
EVERY  
PIXEL.**

*AMD is the only company delivering Ultra HD for every facet of life, from the largest Times Square HD display, to the breathtaking 5K iMac and MacBook Pro with Retina Display.*



**WE'RE IN  
THE GAME.**

*AMD is the only provider of CPU and graphics for Xbox One, and the exclusive partner to more blockbuster PC games like Star Wars Battlefront.*



**WE'RE  
IN SAFE  
KEEPING.**

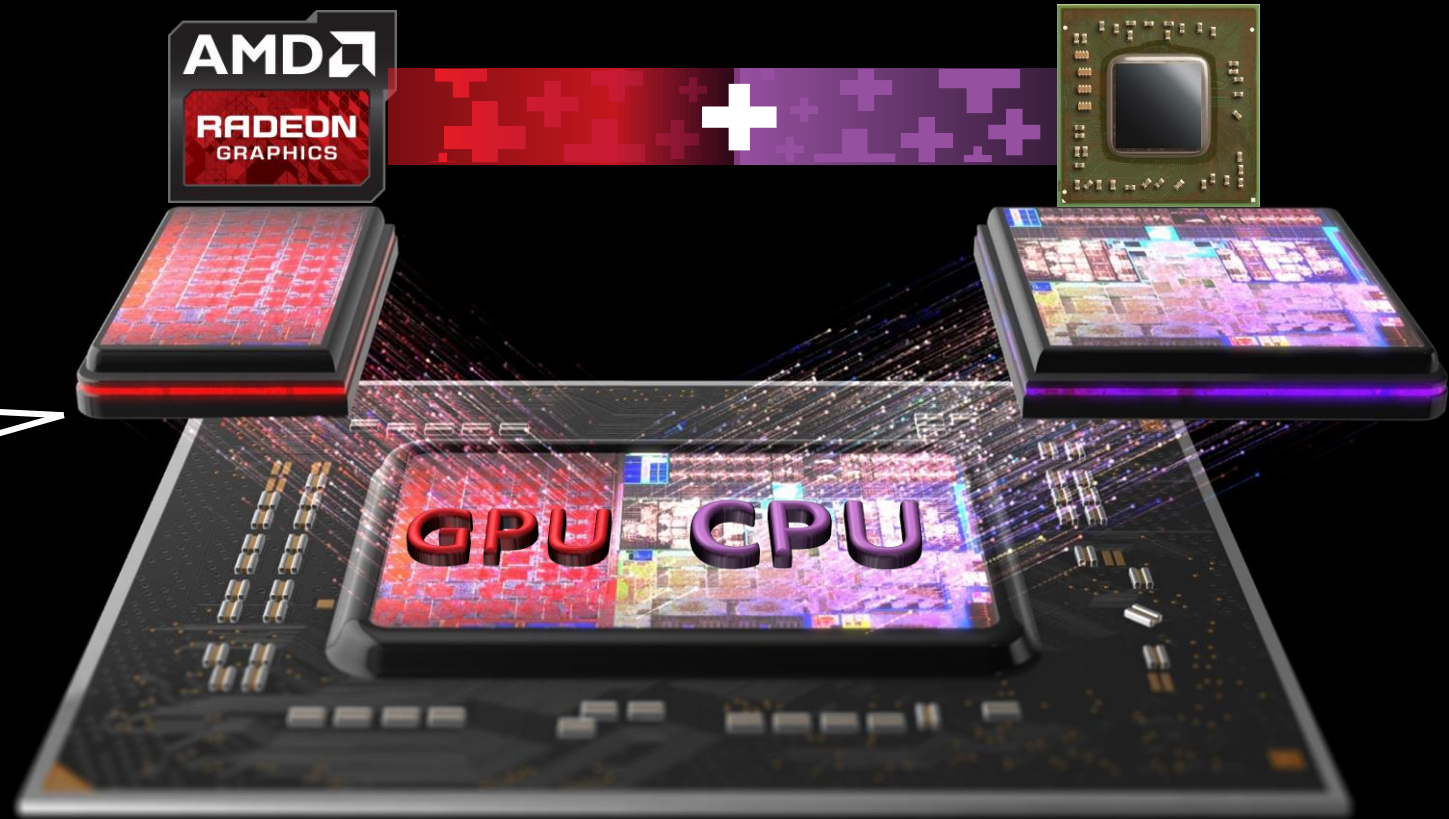
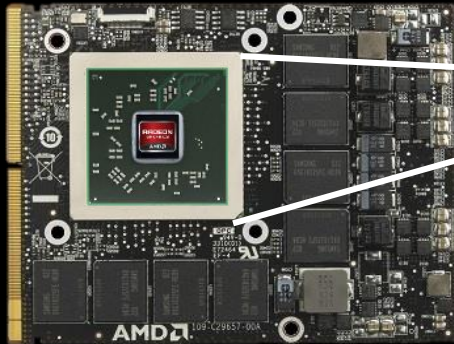
*Trusted by security leaders worldwide, AMD is the only company that provides built-in security features for consoles and PCs.*



# AMD A-SERIES APUS DELIVER WHAT CUSTOMERS NEED



AMD RADEON™ R7 OR R6  
GRAPHICS INCLUDED



## STABILITY

- ▲ Industry leading 18 month image stability
  - ▲ Specific driver branch tested and supported for commercial client

3 MORE MONTHS  
SUPPORT OVER  
COMPETITION

## QUALITY

- ▲ Commercial Grade
  - ▲ Extended HW, SW and platform level testing targeted for PRO



## LONGEVITY

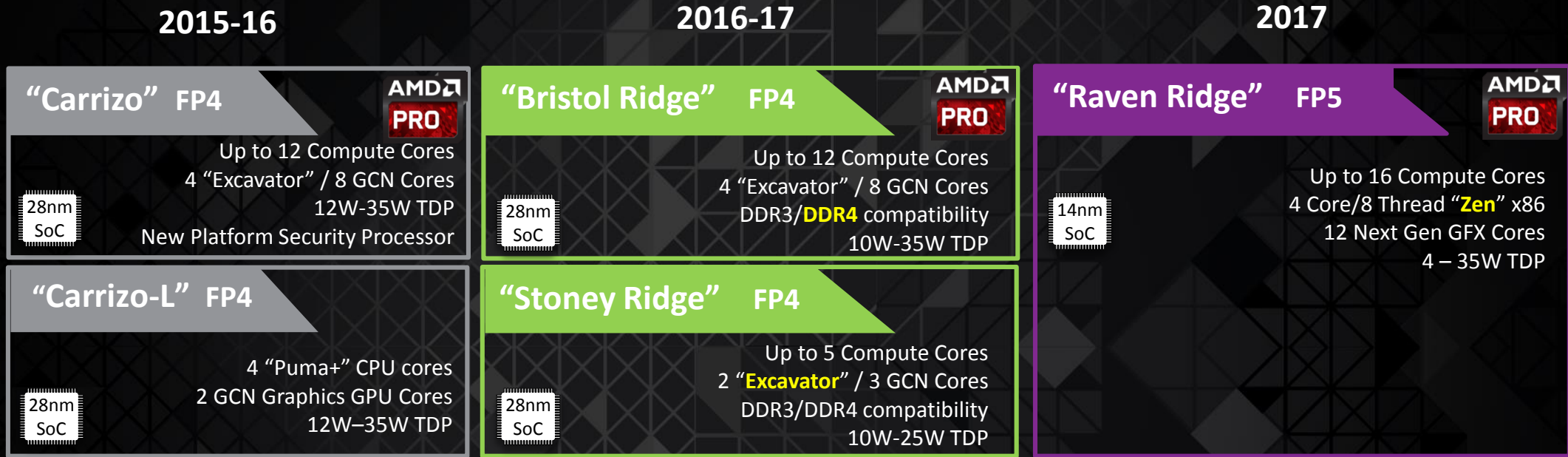
- ▲ 24 month longevity
  - ▲ Extended manufacturing support from initial production to final shipments

## WARRANTY

- ▲ Extended OEM warranty support up to 36 months



# ROADMAP



- ▲ The current generation OEM products are power by Carrizo & Carrizo-L
- ▲ In 2016 “Bristol Ridge” Further Improves Performance\* and Mobility, and Enables DDR4
- ▲ **Game Changer in Entry Space with “Stoney Ridge” bringing “Big-Die” Performance**
- ▲ Opportunity in Stable Infrastructure to Improve Commercial Solutions

\*Visit [amd.com/ComputeCores](http://amd.com/ComputeCores) to learn more about compute cores

\*Testing by AMD Performance labs. PC manufacturers may vary configurations yielding different results. PCMark 8 v2 Home Accelerated is used to simulate system productivity; the 7th Generation AMD A12 @ 15W scored 3057 while the 6th Generation AMD A10 @ 15W scored 2883, for a benchmark score difference of 3057/2883 = 1.06X or 6%. BRN-4



# AMD 6<sup>TH</sup> GENERATION A-SERIES PROCESSOR (“CARRIZO”)



“Llano”  
6/2011

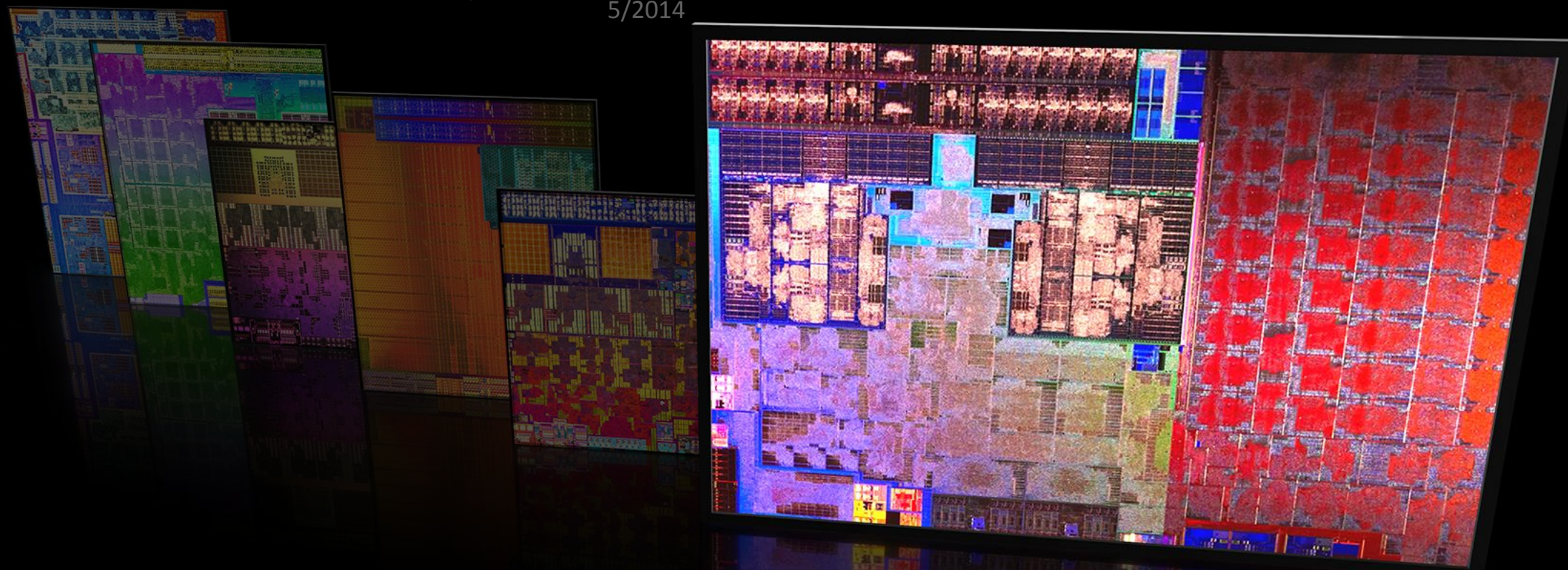
“Trinity”  
6/2012

“Kabini”  
5/2013

“Kaveri”  
1/2014

“Beema”  
5/2014

## 6<sup>TH</sup> GENERATION A-SERIES



NEW AMD HIGH-PERFORMANCE SoC TO DRIVE PLATFORM INNOVATION



# "CARRIZO"

## REDEFINING THE PROCESSOR

Innovative Technologies to change the mainstream

**1<sup>st</sup>** Performance APU  
in SoC Design

**1<sup>st</sup>** HEVC Hardware  
for Mainstream  
Notebooks

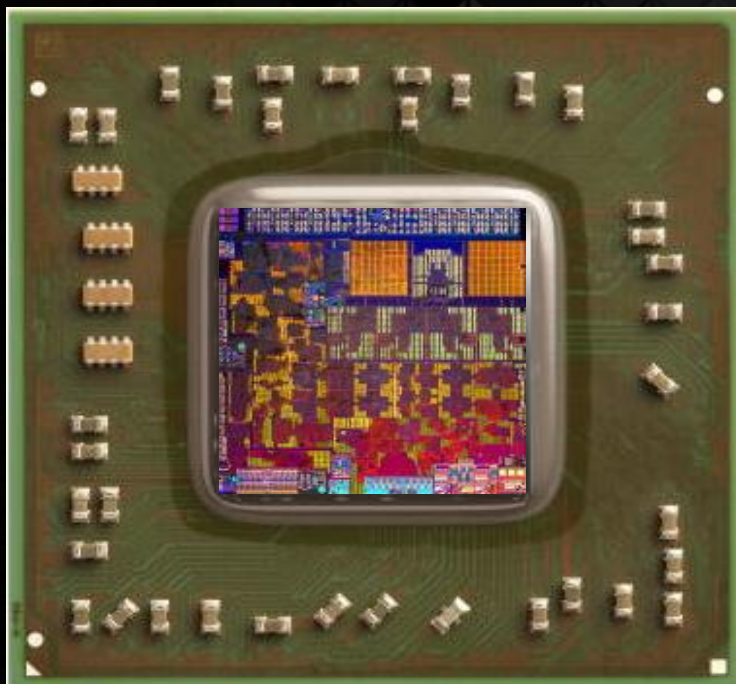
**1<sup>st</sup>** ARM® TrustZone®  
Capable  
Performance APU

**1<sup>st</sup>** HSA 1.0  
Architecture



# "CARRIZO-L"

GREAT PERFORMANCE AT AN UNBELIEVABLE VALUE



## "CARRIZO-L"

*MORE PERFORMANCE AND FEATURES FOR MAINSTREAM PCS*

- ▲ WORK with Great Battery Life
- ▲ THIN & LIGHT Mainstream Platforms
- ▲ The BEST User Experiences

Up to 4 CPU Cores  
with GCN

AMD Perfect Picture

AMD Start Now Technology

Ready for  
Windows 10



AMD PERFECT PICTURE  
WITH AMD STEADY VIDEO



AMD RADEON™  
R-SERIES GRAPHICS



AMD START NOW  
TECHNOLOGY



AMD RADEON™  
R-SERIES GRAPHICS



AMD SECURE  
TECHNOLOGY



AMD ENDURO  
TECHNOLOGY



AMD WIRELESS  
DISPLAY



"Llano"  
6/2011

"Trinity"  
6/2012

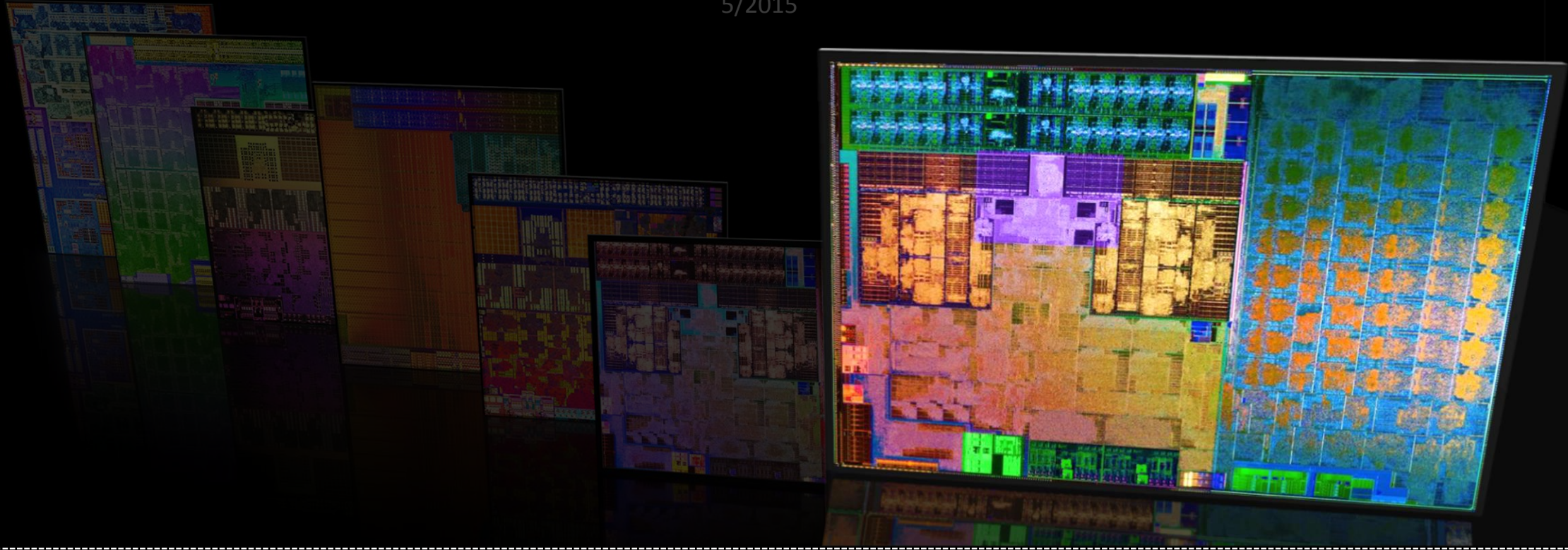
"Kabini"  
5/2013

"Kaveri"  
1/2014

"Beema"  
5/2014

"Carrizo"  
5/2015

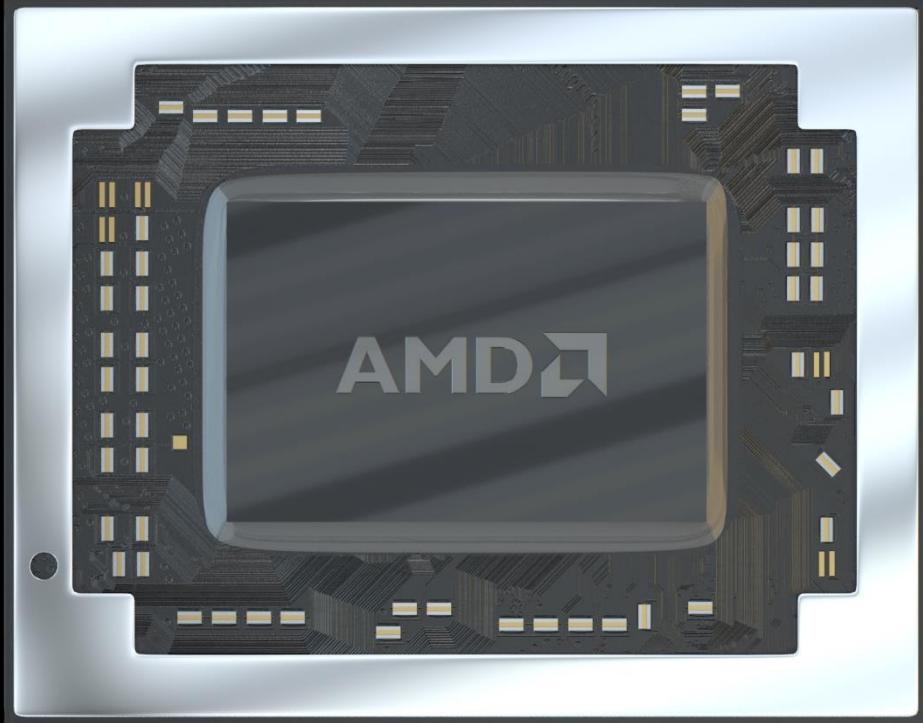
## 7<sup>TH</sup> GENERATION AMD A-SERIES



LAUNCHING *NOW*

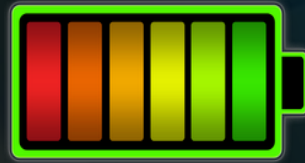


**7<sup>TH</sup> GENERATION  
AMD A-SERIES APU**



**PRODUCTIVE**

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**BATTERY**

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**ENERGY EFFICIENT**

PERFORMANCE FLEXIBILITY



## 7<sup>TH</sup> GENERATION MOBILE

- ▲ Faster Cores – Amazing Uplift in Stable Infrastructure with up to 14% CPU core improvement\*
- ▲ Further Optimize “Excavator” Cores to Improve Productivity and Battery Life for 2016
- ▲ Further Improvements to AMD PRO Security.
- ▲ Build on industry-leading Graphics and Compute with New Enterprise Features
- ▲ Support Transition to DDR4

\*Testing by AMD Performance labs. PC manufacturers may vary configurations yielding different results. Cinebench R15 1T is used to represent per core performance; the 7th Generation AMD PRO A12 @ 35W scored 93.24 while the 6th Generation AMD PRO A12 @ 35W scored 81.82, for a benchmark score difference of 93.24/81.82 = 1.14X or 14%.

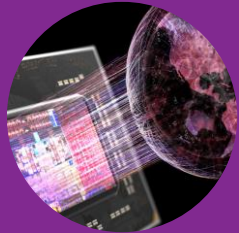


# Purpose Built for Commercial

WINNING  
PROCESSOR  
ROADMAP

UNDISPUTED  
GRAPHICS  
LEADERSHIP

LASER FOCUS  
ON  
EFFICIENCY



## Productivity Gains

- "Excavator" Core in Entry
- Estimated up to 36% in productivity.



## Latest Multimedia

- Estimated Up to +30% Graphics.
- VP9 decode support
- Full-stack Hardware HEVC
- 4K & FreeSync™ Support

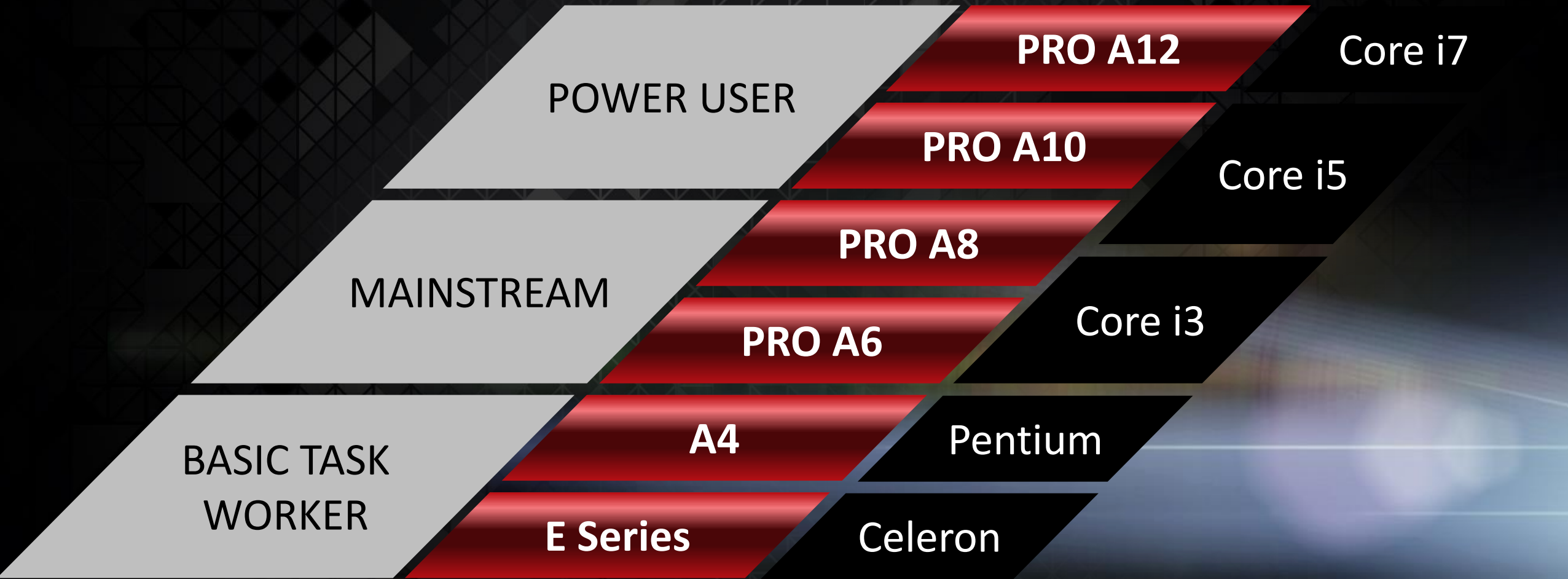


## Power Efficiency

- 15W optimized SKUs
- 14+ hr HD Video Playback
- 14+ hr MobileMark 14



# AMD COMPETITIVE POSITIONING



# A8PRO-8600B VS Core i3 6<sup>th</sup> Gen



	Core i3 6100U	A8PRO-8600B	WHAT DO THEY MEAN ?
No of CPU Cores	2	4	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 24	6 / 384	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	2 (CPU)	10 (4CPU+6GPU)	More number of compute cores better the performance
Graphics Model No	HD	R6 Series	Graphics Model Number
Total Cache	3 MB	2 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	2.3 GHz	1.6 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	Not Supported	3.0 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 2133 MHz	Maximum speed of memory supported by the APU
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Basemark CL	55.91	58	Performance in the OpenCL Benchmark
PCMark 8 Work Accelerated	4037	3923	Performance in Office Productivity Applications
3DMark FireStrike	811	910	Performance in 3D Graphics Applications
Passmark (CPU Mark)	3503	3421	



# A10PRO-8700B VS Core i5 6<sup>th</sup> Gen



	Core i5 6200U	A10PRO-8700B	WHAT DO THEY MEAN ?
No of CPU Cores	2	4	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 24	6 / 384	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	2 (CPU)	10 (4CPU+6GPU)	More number of compute cores better the performance
Graphics Model No	HD	R6 Series	Graphics Model Number
Total Cache	3 MB	2 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	2.3 GHz	1.8 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	2.8 GHz	3.2 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 2133 MHz	Maximum speed of memory supported by the APU
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Basemark CL	57.18	60.26	Performance in the OpenCL Benchmark
PCMark 8 Work Accelerated	4219	4104	Performance in Office Productivity Applications
3DMark FireStrike	890	1063	Performance in 3D Graphics Applications
Passmark (CPUMark)	3933	3879	

# A12PRO-8800B VS Core i7 6<sup>th</sup> Gen



	Core i7 6500U	A12PRO-8800B	WHAT DO THEY MEAN ?
No of CPU Cores	2	4	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 24	8 / 512	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	2 (CPU)	12 (4CPU+8GPU)	More number of compute cores better the performance
Graphics Model No	HD	R6 Series	Graphics Model Number
Total Cache	3 MB	2 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	2.5 GHz	2.1 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	3.1 GHz	3.4 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 2133 MHz	Maximum speed of memory supported by the APU
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Basemark CL	58.57	66.7	Performance in the OpenCL Benchmark
PCMark 8 Work Accelerated	4378	4248	Performance in Office Productivity Applications
3DMark FireStrike	878	1242	Performance in 3D Graphics Applications
Passmark (CPUMark)	4319	4395	



# NOTEBOOK SPECIFICATION COMPARISON – 2016 AMD PRO VS. INTEL



## ▲ “Bristol Ridge” vs “Skylake” Mobile

Processor		CPU Cores		Max CPU Frequency		Base CPU Frequency		Cache		Graphics Max Clock		DASH Manageability		Trusted Execution Security		Stable Image Support		Turbo Boost	
AMD	Intel	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake
AMD PRO A12-9800B with 12 CC	Intel Core i7-6500U vPro	4	2	3.6 GHz	3.1 GHz	2.7 GHz	2.5 GHz	2MB	4MB	758 MHz	1050 MHz	Yes	Yes	Yes	Yes	Yes	Yes	4	Yes
AMD PRO A10-9700B with 10 CC	Intel Core i5-6200U	4	2	3.4 GHz	2.8 GHz	2.5 GHz	2.3 GHz	2MB	3MB	758 MHz	1050 MHz	Yes	Yes	Yes	Yes	Yes	Yes	4	Yes
AMD PRO A8-9600B with 10 CC	Intel Core i3-6100U	4	2	3.3 GHz	N/A	2.4 GHz	2.3 GHz	2MB	3MB	720 MHz	1000 MHz	Yes	No	Yes	No	Yes	No	4	No
<b>STONEY RIDGE</b>																			
AMD A9-9410 with 5 CC	Intel Core i3-6100U	2	2	3.5 GHz	N/A	2.9 GHz	2.3 GHz	1MB	3MB	800 MHz	1000 MHz	No	No	No	No	No	No	4	No

# AMD DESKTOP SOCKET PLATFORM ROADMAP



2015-16

2016-17

2017


**“Godavari” FM2+**




4 “Steamroller” CPU cores  
Up to 8 GCN Graphics GPU Cores  
65W and 95W



**“Bristol Ridge” AM4**



4 “Excavator” x86 & 8 GCN Cores  
PCIe® Gen3 for GFX  
AMD “Promontory” chipset  
35-65W




**“Summit Ridge” AM4**




8 Core / 16 Thread “Zen”  
PCIe Gen3 for GFX  
AMD “Promontory” chipset  
65-95W



**“Raven Ridge” AM4**

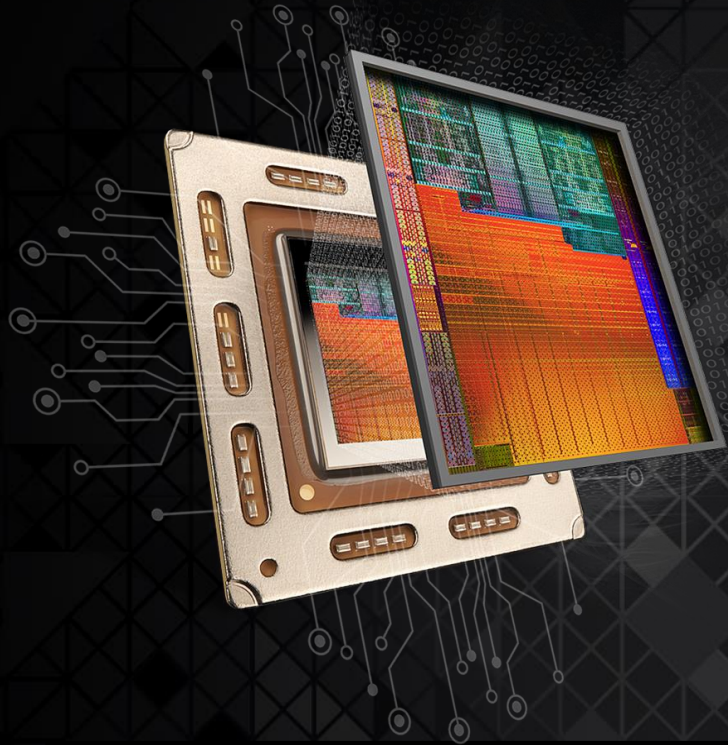


4 Core / 8 Thread “Zen” & Next Gen GFX  
PCIe Gen3 for GFX  
AMD “Promontory” chipset  
35-95W



- ▲ 2016 delivers AMD “Excavator” cores to DT, expected to Improve Performance & Energy Efficiency
- ▲ Delivering Optimized 35W Desktop APUs projecting vastly improved Performance in Ultra-Small Form Factor
- ▲ Set up new AM4 Infrastructure Enabling AMD to scale to Premium DT Performance with 8 Core / 16 Thread “Zen” based “Summit Ridge”





## "GODAVARI"

*THE IDEAL DESKTOP PC FOR MODERN WORKLOADS*

- ▲ EXCEPTIONAL Performance per dollar
- ▲ Up to 1 Teraflop of HSA Compute
- ▲ Increased CPU Frequencies & Graphics Clocks

Out perform Core i7 in  
Graphics & Compute

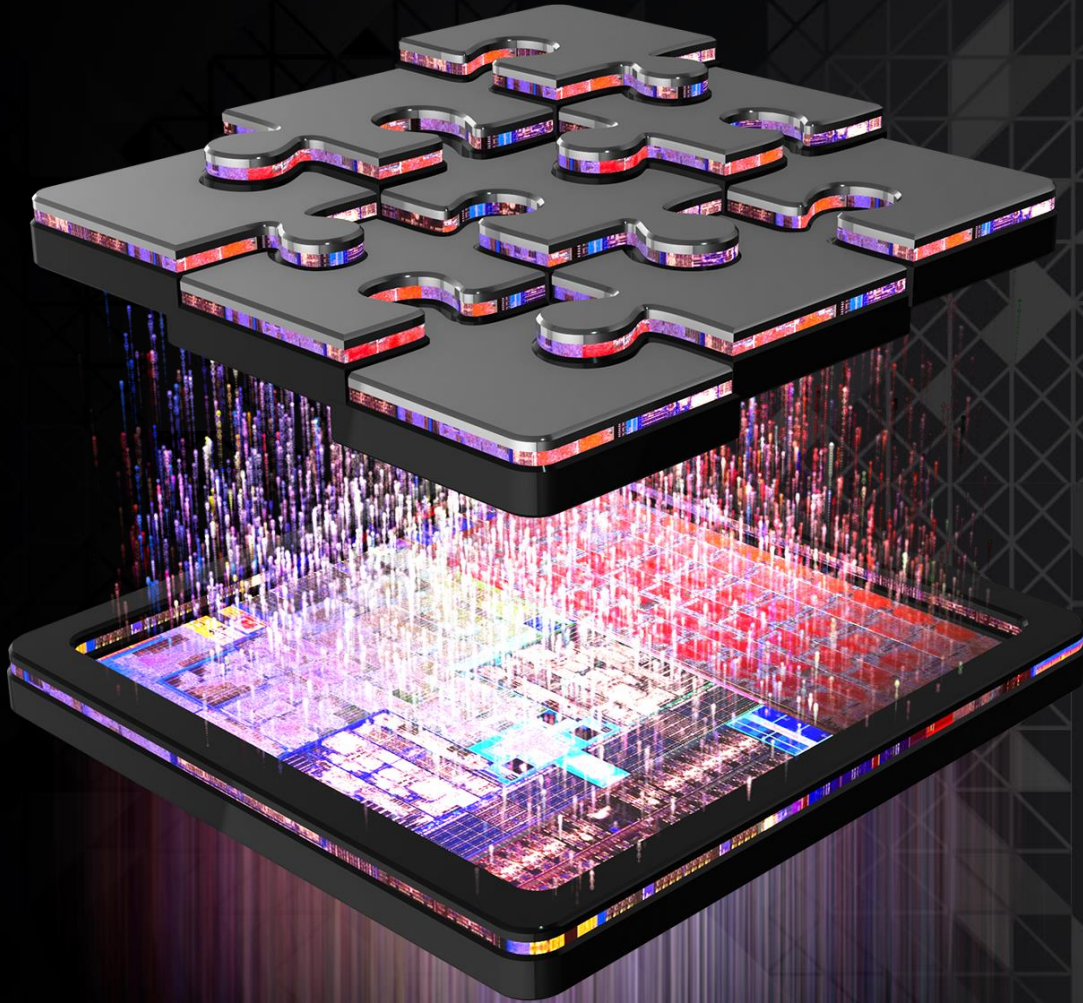
Seamless platform transition  
with FM2+ Compatibility

Increased Frequencies  
up to 4.1GHz

Enhanced Video Quality  
For Lync Business

Up to 12 Compute Cores

Graphics Core Next with  
GPU clock up to 800 MHz

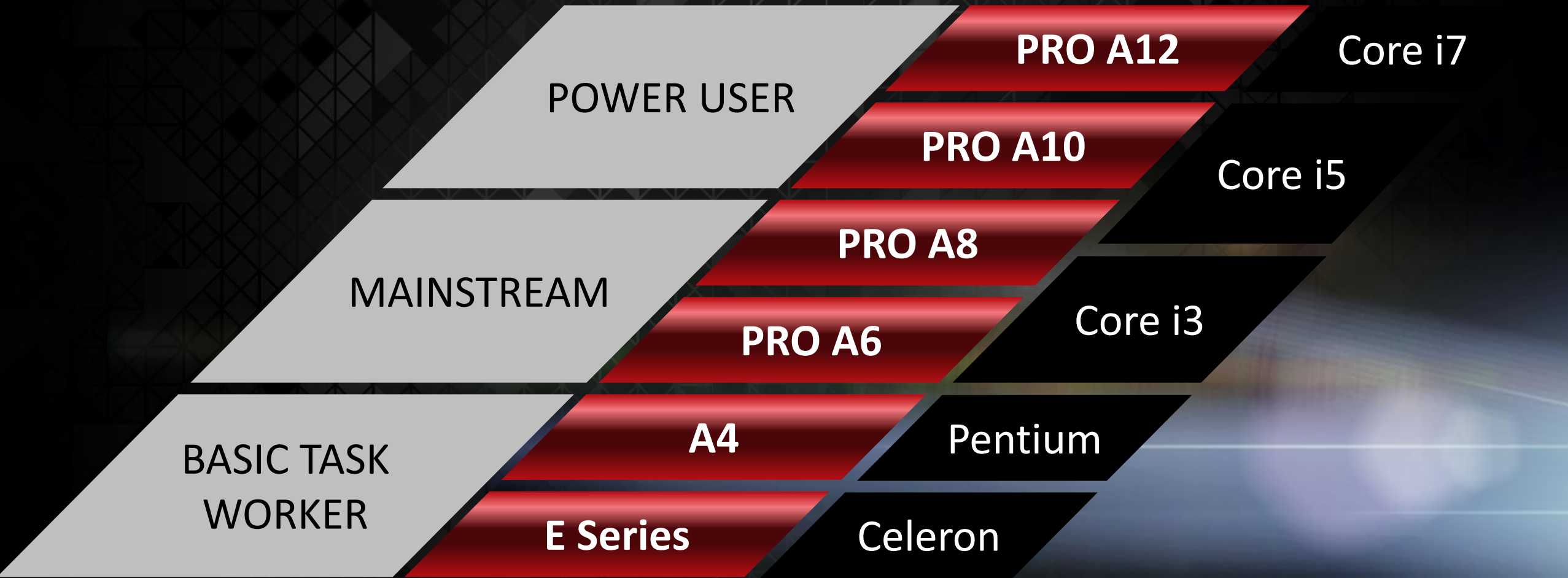


## 7<sup>TH</sup> GENERATION DT

- ▲ Shift to New Faster “Excavator” CPU Cores for Improved Commercial Productivity with frequencies up to 4.2 GHz
- ▲ Significant Improvement in Performance / Watt with 65W “Bristol Ridge” outperforming 95W Godavari
  - ▲ Optimized at Both 65W (Tower, SFF) and 35W (Mini)
- ▲ New AMD PRO A12 at Top of “Bristol Ridge” portfolio
- ▲ New AMD Secure Processor integrated into “Bristol Ridge” APUs, enabling advanced hardware security
- ▲ Support Transition to DDR4, TPM 2.0
- ▲ New AM4 Infrastructure planned to Last 4+ Years



# AMD COMPETITIVE POSITIONING



# A4PRO-8350B VS PENTIUM 6<sup>th</sup> Gen



	Pentium G4400	A4-PRO 8350B	WHAT DO THEY MEAN ?
No of CPU Cores	2	2	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 40	4 / 256	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	2 (CPU)	6 (2CPU+4GPU)	More number of compute cores better the performance
Graphics Model No	HD	R5 Series	Graphics Model Number
Total Cache	3 MB	1 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	3.3 GHz	3.5 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	Not Supported	3.9 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 1866 MHz	Maximum memory speed supported
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Basemark CL	21.5	62	Performance in the OpenCL Benchmark
3DMark FireStrike	812	1312	Performance in 3D Graphics Applications

# A8PRO-8650B VS Core i3 6<sup>th</sup> Gen



	Core i3 6100	A8-PRO 8650B	WHAT DO THEY MEAN ?
No of CPU Cores	2	4	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 24	6 / 384	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	2 (CPU)	10 (4CPU+6GPU)	More number of compute cores better the performance
Graphics Model No	HD 530	R7 Series	Graphics Model Number
Total Cache	3 MB	4 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	3.7 GHz	3.2 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	Not Supported	3.9 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 2133 MHz	Maximum speed of memory supported by the APU
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Base Mark CL Scores	54.86	80.38	Score of AMD is Higher than Intel
PCMark Work Acc Scores	4463	4480	Score of Intel is Higher than AMD
3DMark Firestrike Scores	924	1419	Score of AMD is Higher than Intel



# A10PRO-8750B VS Core i5 6<sup>th</sup> Gen



	Core i5 6500	A10-PRO 8750B	WHAT DO THEY MEAN ?
No of CPU Cores	4	4	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 40	8 / 512	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	4 (CPU)	12 (4 CPU+8GPU)	More number of compute cores better the performance
Graphics Model No	HD 530	R7 Series	Graphics Model Number
Total Cache	6 MB	4 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	3.2 GHz	3.6 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	3.6 GHz	4.0 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 2133 MHz	Maximum speed of memory supported by the APU
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Base Mark CL Scores	55.95	93.38	OpenCL performance
PCMark Work Acc Scores	4555	4531	Overall productivity performance
3DMark Firestrike Scores	1096	1571	Overall graphics performance

# A10PRO-8850B VS Core i7 6<sup>th</sup> Gen



	Core i7 6700	A10-PRO 8850B	WHAT DO THEY MEAN ?
No of CPU Cores	4	4	Higher the Number of Cores, higher the performance
GPU Compute Cores / No of Graphics Shader Cores	NA / 40	8 / 512	Higher the Number of GPU Cores, higher is the graphics & compute performance
Total Compute Cores	4 (CPU)	12 (4 CPU+8GPU)	More number of compute cores better the performance
Graphics Model No	HD 530	R7 Series	Graphics Model Number
Total Cache	8 MB	4 MB	AMD offers L2 cache which is much more faster than L3 cache offered by competition
Clock Speed	3.4 GHz	3.9 GHz	Clock Frequency of the processor cores
Turbo Core Frequency	4.0 GHz	4.1 GHz	Higher the boost clock frequency, higher is the performance in non-threaded applications
Max Memory Support	DDR4 2133 MHz	DDR3 2133 MHz	Maximum speed of memory supported by the APU
Direct X	12	12	Version of Direct X effects Windows 8.1 / 10 Performance as applications can use Direct Compute ex. MS Office
Base Mark CL Scores	62	96.56	OpenCL performance
PCMark Work Acc Scores	4909	4750	Overall productivity performance
3DMark Firestrike Scores	1110	1588	Overall graphics performance

# DESKTOP SPECIFICATION COMPARISON – 2016 AMD PRO VS. INTEL



## “Bristol Ridge” vs “Skylake” Desktop

Processor		CPU Cores		Max CPU Frequency		Base CPU Frequency		Cache		Graphics Max Clock		DASH Manageability		Trusted Execution Security		Stable Image Support		Turbo Boost	
AMD	Intel	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake	AMD 2016	Intel Skylake
AMD PRO A12-9800 with 12 Compute Cores	Intel Core i5-6500 vPro	4	4	4.2 GHz	3.6 GHz	3.8 GHz	3.2 GHz	2MB	6MB	1108 MHz	1050 MHz	Yes	Yes	Yes	Yes	Yes	Yes	4	Yes
AMD PRO A10-9700 with 10 Compute Cores	Intel Core i5-6400	4	4	3.8 GHz	3.3 GHz	3.5 GHz	2.7 GHz	2MB	6MB	1029 MHz	950 MHz	Yes	Yes	Yes	Yes	Yes	Yes	4	Yes
AMD PRO A8-9600 with 10 Compute Cores	Intel Core i3-6100	4	2	3.4 GHz	N/A	3.1 GHz	3.7 GHz	2MB	3MB	1029 MHz	1050 MHz	Yes	No	Yes	No	Yes	No	4	No
AMD PRO A6-9500 with 8 Compute Cores	Intel Pentium G4400	2	2	3.8 GHz	N/A	3.5 GHz	3.3 GHz	2MB	2MB	1029 MHz	1000 MHz	Yes	No	Yes	No	Yes	No	4	No





AMD DASH

## AMD + DASH

- ▲ **AMD enables the manageability features IT PROS Need - WITH DASH**
- ▲ **AMD supports the DASH open standard approach for out-of-band manageability and has developed a DASH plug-in for Microsoft's System Center Configuration Manager (SCCM).**
- ▲ **The DASH feature set is robust and enables all the MUST HAVE manageability feature requirements in a standards-based solution vs. proprietary AMT.**
- ▲ **NO ADDITIONAL COST – DON'T PAY FOR SOMETHING NOT USED**
- ▲ **BASED ON OPEN STANDARDS : NO VENDOR LOCK-IN & REDUCED COSTS WITH MORE CHOICE**







# WINDOWS 7 SUPPORT

CARRIZO – DDR4 LAUNCH





## WINDOWS 7 Extended Support Through 2020

- ▲ “Windows 7 will continue to be supported for security, reliability, and compatibility through January 14, 2020 on previous generation silicon...This includes most of the devices available for purchase today by consumers or enterprises.” \*
- ▲ “Windows 10 will be the only supported Windows platform on Intel’s upcoming “Kaby Lake” silicon, Qualcomm’s upcoming “8996” silicon, and AMD’s upcoming “Bristol Ridge” silicon.” \*

### Microsoft Endorses the following AMD messages :

- ▲ AMD “Carrizo” NB APUs and AMD “Godavari” DT APUs will receive support for Windows 7 through 2020
- ▲ AMD “Carrizo DDR4” PRO APUs for NB (FP4) and DT (AM4) will receive support for Windows 7 through 2020
- ▲ AMD “Bristol Ridge” 7<sup>th</sup> Generation APUs and “Summit Ridge” CPUs will be Windows 10 Only
- ▲ This OS support is tied to the AMD processor family, regardless of the motherboard / infrastructure

\* <https://support.microsoft.com/en-us/lifecycle#gp/LifeWinFAQ>



## CONFIRMATION OF WINDOWS 7 SUPPORT ON AMD PRO

- ▲ For upcoming 2016 commercial platforms AMD will be releasing “Carrizo DDR4” AMD PRO APUs. These APUs are an enhancement to our 6th generation technology and will ship for both notebook (FP4) and desktop (AM4) infrastructures.
- ▲ Microsoft will extend Windows 7 support for “Carrizo DDR4” PRO APU through January 14, 2020, in addition to providing Windows 10 support. Microsoft has approved the distribution of this statement. For further details, please contact your local Microsoft representative or email [amdpcsilicon@microsoft.com](mailto:amdpcsilicon@microsoft.com)
- ▲ AMD will also be launching our “Bristol Ridge” PRO 7th generation APUs in 2H16. Microsoft will only provide Windows 10 support for these APUs - Microsoft will not be providing Windows 7 support.

# 2015-2016 AMD PRO APU PORTFOLIO – 15W NOTEBOOK



## AMD PRO 8000 SERIES

## AMD PRO 9000 SERIES

### CARRIZO DDR3

### CARRIZO DDR4



#### **AMD PRO A12-8800B**

Base Frequency : 2.1 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R7

#### **AMD PRO A12-8830B**

Base Frequency : 2.5 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R7

#### **AMD PRO A12-9800B**

Base Frequency : 2.7 GHz  
Boost Frequency : 3.6 GHz  
Graphics : Radeon R7

#### **AMD PRO A10-8700B**

Base Frequency : 1.8 GHz  
Boost Frequency : 3.2 GHz  
Graphics : Radeon R6

#### **AMD PRO A10-8730B**

Base Frequency : 2.4 GHz  
Boost Frequency : 3.3 GHz  
Graphics : Radeon R5

#### **AMD PRO A10-9700B**

Base Frequency : 2.5 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R7

#### **AMD PRO A8-8600B**

Base Frequency : 1.6 GHz  
Boost Frequency : 3.0 GHz  
Graphics : Radeon R6

#### **AMD PRO A8-9600B**

Base Frequency : 2.4 GHz  
Boost Frequency : 3.3 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-8500B**

Base Frequency : 1.6 GHz  
Boost Frequency : 3.0 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-8530B**

Base Frequency : 2.3 GHz  
Boost Frequency : 3.2 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-9500B**

Base Frequency : 2.3 GHz  
Boost Frequency : 3.2 GHz  
Graphics : Radeon R5



# 2015-2016 AMD PRO APU PORTFOLIO – 35W ‘E’ DESKTOP



## AMD PRO 8000 SERIES

## AMD PRO 9000 SERIES

### CARRIZO DDR3 (CTDP)

### CARRIZO-E DDR4

### BRISTOL RIDGE-E



#### **AMD PRO A12-8800B**

Base Frequency : 2.1 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R7

#### **AMD PRO A12-8870E**

Base Frequency : 2.9 GHz  
Boost Frequency : 3.8 GHz  
Graphics : Radeon R7

#### **AMD PRO A12-9800E**

Base Frequency : 3.1 GHz  
Boost Frequency : 3.8 GHz  
Graphics : Radeon R7

#### **AMD PRO A10-8700B**

Base Frequency : 1.8 GHz  
Boost Frequency : 3.2 GHz  
Graphics : Radeon R6

#### **AMD PRO A10-8770E**

Base Frequency : 2.8 GHz  
Boost Frequency : 3.5 GHz  
Graphics : Radeon R7

#### **AMD PRO A10-9700E**

Base Frequency : 3.0 GHz  
Boost Frequency : 3.5 GHz  
Graphics : Radeon R7

#### **AMD PRO A8-8600B**

Base Frequency : 1.6 GHz  
Boost Frequency : 3.0 GHz  
Graphics : Radeon R6

#### **AMD PRO A6-8570E**

Base Frequency : 3.0 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-9500E**

Base Frequency : 3.0 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-8500B**

Base Frequency : 1.6 GHz  
Boost Frequency : 3.0 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-8570E**

Base Frequency : 3.0 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R5

# 2015-2016 AMD PRO APU PORTFOLIO – 65W DESKTOP



## AMD PRO 8000 SERIES

## AMD PRO 9000 SERIES

### GODAVARI DDR3

### CARRIZO DDR4

### BRISTOL RIDGE



#### **AMD PRO A10-8750B**

Base Frequency : 3.6 GHz  
Boost Frequency : 4.0 GHz  
Graphics : Radeon R7

#### **AMD PRO A12-8870**

Base Frequency : 3.7 GHz  
Boost Frequency : 4.2 GHz  
Graphics : Radeon R7

#### **AMD PRO A12-9800**

Base Frequency : 3.8 GHz  
Boost Frequency : 4.2 GHz  
Graphics : Radeon R7

#### **AMD PRO A8-8650B**

Base Frequency : 3.2 GHz  
Boost Frequency : 3.9 GHz  
Graphics : Radeon R7

#### **AMD PRO A10-8770**

Base Frequency : 3.5 GHz  
Boost Frequency : 3.8 GHz  
Graphics : Radeon R7

#### **AMD PRO A10-9700**

Base Frequency : 3.5 GHz  
Boost Frequency : 3.8 GHz  
Graphics : Radeon R7

#### **AMD PRO A6-8550B**

Base Frequency : 3.7 GHz  
Boost Frequency : 4.0 GHz  
Graphics : Radeon R5

#### **AMD PRO A6-8570**

Base Frequency : 3.5 GHz  
Boost Frequency : 3.8 GHz  
Graphics : Radeon R5

#### **AMD PRO A8-9600**

Base Frequency : 3.1 GHz  
Boost Frequency : 3.4 GHz  
Graphics : Radeon R5

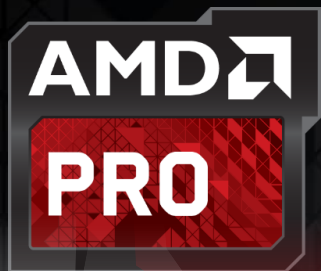
#### **AMD PRO A6-9500**

Base Frequency : 3.5 GHz  
Boost Frequency : 3.8 GHz  
Graphics : Radeon R5



GET MORE WITH AMD





PERFORMANCE

RELIABILITY

## OPPORTUNITY

### ▲ Opportunity To SAVE MORE

Get a No-Compromise Enterprise Solution and Save \$Millions



### ▲ Opportunity to GET MORE

Reinvest AMD Savings and get Better Components & Better System Performance



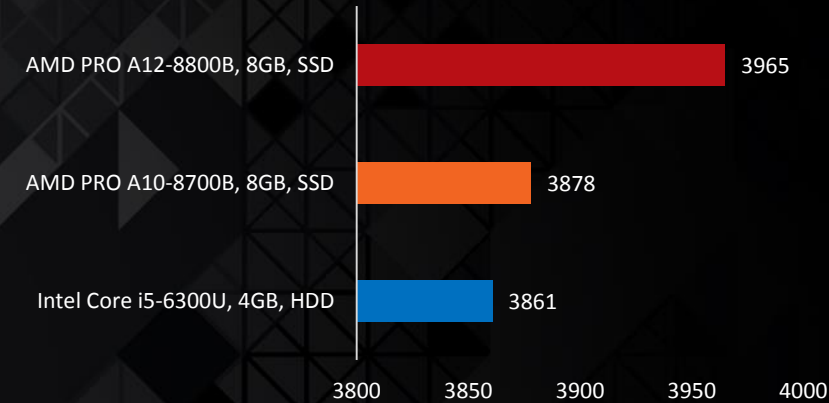
# Get more with AMD PRO + HP Elite Vs Lenovo ThinkPad



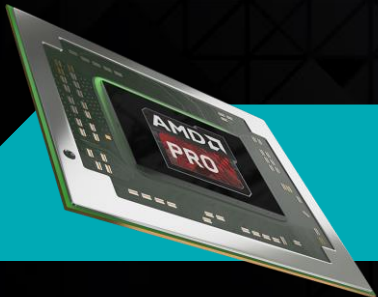
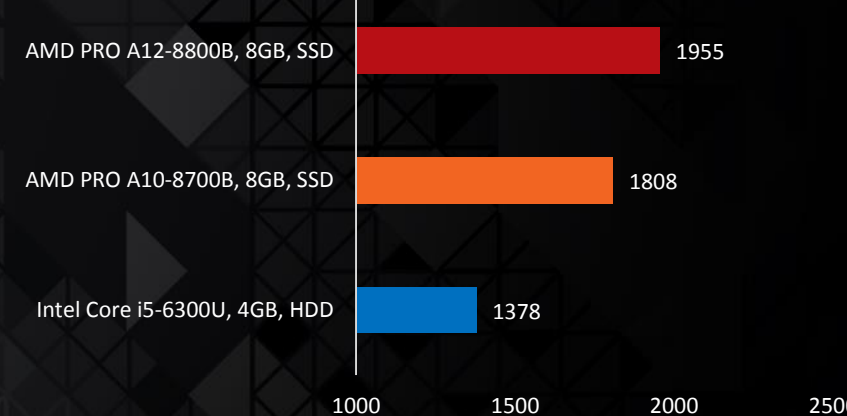
Model	HP EliteBook 745 G3 HP Shopping	HP EliteBook 745 G3 HP Shopping	Lenovo ThinkPad T460 CDW.com
Processor	AMD PRO A12-8800B	AMD PRO A10-8700B	Intel Core™ i5-6300U
# CPU Cores	4	4	2
Max Frequency	3.4 GHz	3.2 GHz	3.0 GHz
Graphics	AMD Radeon™ R7	AMD Radeon™ R6	Intel HD Graphics 520
RAM	8GB	8GB	4GB
Display	14" 1920 X 1080 FHD	14" 1920 X 1080 FHD	14" 1920 X 1080 FHD
Hard Drive	256 GB SSD	256 GB SSD	Standard HDD
Price	\$1,049	\$1,009	\$1,099.00

HP/AMD = \$50-90 Less

PCMark 8 Work Accelerated (Productivity)



3DMark 11 (Graphics)



**GET MORE. UPGRADE MEMORY AND STORAGE WITH AMD  
AND GET MORE PERFORMANCE**

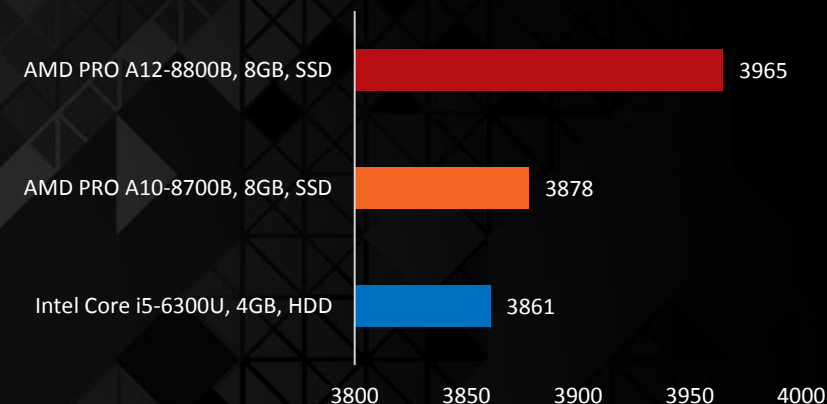
# Get more with AMD PRO + HP Elite vs. Dell Latitude 5000 series



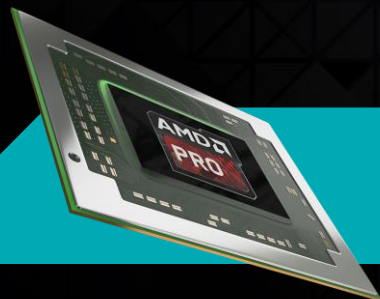
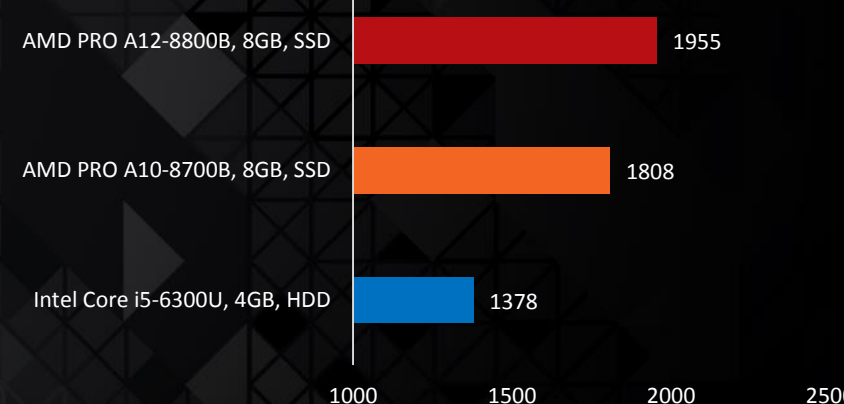
Model	HP EliteBook 755 G3 HP Shopping	HP EliteBook 755 G3 HP Shopping	Dell Latitude E5570 Dell.com
Processor	AMD PRO A12-8800B	AMD PRO A10-8700B	Intel Core™ i5-6300U
# CPU Cores	4	4	2
Max Frequency	3.4 GHz	3.2 GHz	3.0 GHz
Graphics	AMD Radeon™ R7	AMD Radeon™ R6	Intel HD Graphics 520
RAM	<b>8GB</b>	<b>8GB</b>	4GB
Display	15" 1920 X 1080 FHD	15" 1920 X 1080 FHD	15" 1920 X 1080 FHD
Hard Drive	256 GB <b>SSD</b>	256 GB <b>M.2 SSD</b>	Standard HDD
Price	<b>\$999</b>	<b>\$999</b>	<b>\$1,150.00</b>

HP/AMD = 101- \$141 Less

PCMark 8 Work Accelerated (Productivity)



3DMark 11 (Graphics)



**GET MORE. UPGRADE MEMORY AND STORAGE WITH AMD  
AND GET MORE PERFORMANCE**



# REFERENCES & CASE STUDIES

APJ COMMERCIAL WINS

Government of India, GIL (Enabling e-governance), United Bank of India, शिक्षा का अधिकार (सर्व शिक्षा अभियान, सब पढ़ें सब बढ़ें), 3M, ELCOT, MHRD Govt. of India, Facebook, GE, Wipro (Applying Thought), SBBJ (भारतीय स्टेट बैंक), OCAC (Odisha Computer Application Center), ICICI Bank, Amazon, Shell, Bank of America, ANE, Microsoft, Infosys, INFORMATICA, Renault Nissan, TATA, TATA CONSULTANCY SERVICES, Bank of Baroda (India's International Bank).

APJ COMMERCIAL WINS

Reliance Industries Limited (Growth is Life), Bank of Maharashtra (एक कुटुंब एक बैंक), Union Bank of India, United Bank of India (The Bank that begins with 'U'), KLU (KÜHNE LOGISTICS UNIVERSITY), APGENCO, TOTO (あしたを、ちがう「まいにち」に。), ICHIJO (Technological Homes), DENSO, sbt, State Bank of India (The Banker to Every Indian), department of education Govt. of Rajasthan.



AMD CUSTOMER CASE STUDY  
DR PEPPER SNAPPLE GROUP



*“We had come to accept that different devices were required to meet the various needs of our power users, executives, sales force, and office users.*

*The HP EliteBook 745 with AMD is changing that and bringing us back to a corporate standard. It serves a broad base of users very well.”*

Michael Korona, Director of Client Services  
Dr Pepper Snapple Group

- ▶ [Case Study](#) – Dr Pepper Snapple Group: HP EliteBook 745 with AMD PRO APUs reprises corporate standardization for mobility
- ▶ [Video](#) - Dr Pepper Snapple Group on Choosing the HP EliteBook 745 with AMD PRO APUs





## AMD CUSTOMER CASE STUDY BRINK'S

The Brink's logo is displayed in a bold, blue, sans-serif font. To the left of the word 'BRINKS' are five vertical blue bars of varying heights, creating a stylized graphic element.

*“The world of technology today is moving faster than ever. Brink's operates in more than 40 countries across the globe which creates a significant amount of tasks to manage.*

*We were looking for technology to best enable and support our global reach. The HP EliteBook 745 G3 with AMD PRO A-Series APUs fits our requirements perfectly from a global mobility and stability perspective.”*

Matt Burkmier, CIO, Focus Markets and Infrastructure  
Brink's

- ▲ [Case Study](#) – Brink's: “The HP EliteBook 745 G3 with 6th generation AMD PRO APUs, bring tremendous speed to market with its new solutions.”
- ▲ [Video](#) - World leading global security services company Brinks chose AMD PRO





*“We looked for a mobile notebook device that would meet the needs of a broad base of our users.*

*The EliteBook 745 with AMD PRO is lightweight for the mobility of our staff requires, and powerful to maintain the efficiency we expect.”*

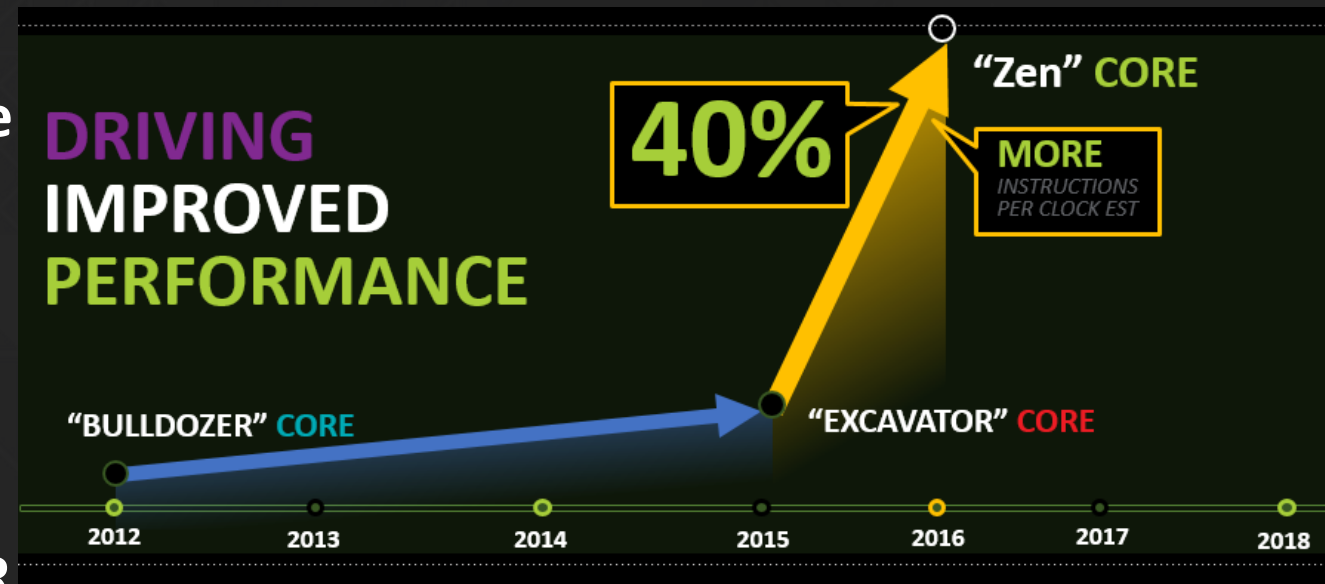
Dennis Lockenwitz, Head of Corporate Indirect,  
Group Procurement, ISS

- ▲ [Case Study](#) – ISS: Driving Simplicity, efficiency and sustainability with HP EliteBook powered by AMD PRO APUs
- ▲ [Video](#) - ISS drives simplicity and efficiency with HP EliteBook powered by AMD PRO APUs

## THE AMD "ZEN" CORE

- New Core with 40% IPC enhancement
- Multi-thread leadership with upto 8 Core & 16 Threads
- New High-Performance L2 and L3 Cache
- Energy-efficient 14nm FinFET Design
- Premium experience of DX12, 4K, and VR

# 2017





# AMD INSPIRES INNOVATION EVERYWHERE.

The world's top companies count on AMD.

A grayscale image of a city skyline at night, with numerous skyscrapers and buildings illuminated by lights. The image is semi-transparent and serves as a background for the "THANK YOU" text.

**THANK YOU**

