CONSUMER PLATFORM FOR NOTEBOOKS Quick Reference Guide







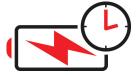
Performance That Matters

- Get image quality that rivals up to 4K while playing your favorite games, even on a 1080p display, with Virtual Super Resolution.¹
- Eliminate stuttering and tearing with AMD FreeSync™ technology.²
- Get back to work or play faster than ever with the rapid resume speeds of AMD Start Now technology.³



Incredible Visual Experiences

- Superior gaming at home or on the go via Graphics Core Next architecture and support for DirectX® 12 and Vulkan™ APIs.⁴
- VP9 Streaming Decode reduces video file size by roughly half for smooth and efficient 4K streaming.⁵
- Smooth, fluid video and long battery life for Ultra HD and silky smooth streaming with HEVC Accelerated Decode.⁶



Work Faster, Play Longer

- Advanced power management technologies intelligently deliver power when you need it and conserve it when you don't.
- AMD Turbo Core technology dynamically boosts performance on demand to provide extra performance when you need it most.
- Set your maximum gaming frame rate with Frame Rate Target Control to help save power, and reduce heat and noise.⁷

ENTHUSIAST

ESSENTIAL

AMDZI E2

7TH GENERATION AMD E2
PROCESSORS ENABLE OUTSTANDING
PERFORMANCE WITH EXCEPTIONAL
ENERGY EFFICIENCY AT A GREAT
VALUE FOR YOUR EVERYDAY NEEDS

 Rock-solid performance and accelerated startup and resume times with AMD Start Now technology³

MAINSTREAM



7TH GEN AMD A4 PROCESSORS
DELIVER EXCELLENT PHOTO AND
VIDEO MANAGEMENT CAPABILITIES
FOR YOUR EVERYDAY NEEDS

- Silky smooth video when you watch premium streaming content and up to Ultra HD with HEVC Accelerated Decode⁶
- AMD Turbo Core provides a boost in performance to your PC when you need it to blast through the most demanding tasks



7TH GEN AMD A6 PROCESSORS ENABLE SMOOTH MULTITASKING PERFORMANCE, ENHANCED HD VIDEO STREAMING

- Stream the latest HD multimedia in stunning enhanced HD quality
- Get peace of mind with AMD Secure Processor technology. AMD security solutions merge a comprehensive ecosystem of hardware and software, building in trust from the start®



7TH GEN AMD A9 PROCESSORS ENABLE GREAT MULTITASKING PERFORMANCE, ENHANCED HD VIDEO STREAMING, AND EXCEPTIONAL ENERGY EFFICIENCY

- Step up to an AMD A10 APU for unbelievable quad-core performance
- AMD App Acceleration enables seamless productivity, utilizing multiple APU resources so you can do more at once⁹



7TH GEN AMD A10 PROCESSORS
DELIVER EXCEPTIONAL MULTITASKING
PERFORMANCE, ENHANCED HD VIDEO
STREAMING, SUPERB
ONLINE GAMING

- Create your dream display for gaming, productivity and entertainment with AMD Evefinity¹⁰
- Get quality that rivals up to 4K while playing your favorite games, even on a 1080p display, with VSR¹



7TH GEN AMD A12 PROCESSORS
ENABLE SUPERIOR MULTITASKING
PERFORMANCE, ENHANCED HD
VIDEO STREAMING AND PROVIDE
ENTHUSIAST-LEVEL PERFORMANCE
FOR BEST-IN-CLASS GAMING¹⁴

- AMD FreeSync™ technology¹ and AMD Radeon™ Dual Graphics¹⁰ make this the ideal platform for smooth and stutter free eSports and online gamine
- Frame Rate Target Control -Limiting the frame rate not only saves power, but also reduces heat and noise, keeping your system cool and quiet⁵

TIER	APU	CPU CORES	RADEON" GPU	RADEON GPU CORES*	CPU MAX CLOCK SPEED	CPU BASE CLOCK SPEED	T0P	AMD START NOW³	AMD TURBO CORE	AMD RADEON" GRAPHICS CORE NEXT	HEVC ACCELERATED DECODE ⁶	VP9 STREAMING DECODE⁵	AMD FREESYNC TECHNOLOGY ²	VIRTUAL SUPER RESOLUTION'	AMD DUAL GRAPHICS"	AMD EVEFINITY TECHNOLOGY®	FRAME RATE TARGET CONTROL?	VULKAN AND DX12⁴
AMDA A12	7th Gen AMD A12-9720P Accelerated Processor	4	R7	8	3.6 GHz	2.7 GHz	12W-15W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AMDA A10	7th Gen AMD A10-9620P Accelerated Processor	4	R5	6	3.4 GHz	2.5 GHz	12W-15W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AMD A	7th Gen AMD A9-9420 Accelerated Processor	2	R5	3	3.6 GHz	3.0 GHz	10W-15W	✓	✓	✓	✓	✓	✓	✓				
AMDA A6	7th Gen AMD A6-9220 Accelerated Processor	2	R4	3	2.9 GHz	2.5 GHz	10W-15W	✓	✓	✓	✓	✓						
AMDA A4	7th Gen AMD A4-9120 Accelerated Processor	2	R3	2	2.5 GHz	2.2 GHz	10W-15W	✓	✓	✓	✓	✓						
AMDJI E2	7th Gen AMD E2-9000 Accelerated Processor	2	R2	2	2.2 GHz	1.8 GHz	10W-15W	✓	✓	✓	✓	✓						

AMD Start Now Technology³

Enables Enables better system responsiveness when waking-up from sleep mode, booting the system to desktop and connecting to wireless local area networks.

AMD Turbo Core Technology

Boosts performance on demand to provide extra performance when you need it most.

AMD Radeon™ Graphics Core Next

Unleashes the power of an AMD APU for cutting-edge graphics performance in gaming and general computing.

HEVC Accelerated Decode⁶

Smooth, fluid video and long battery life for Ultra HD and silky smooth streaming

VP9 Streaming Decode⁵

Reduces video file size (by roughly half¹²) for smooth and efficient 4K streaming.

AMD FreeSync™ Technology²

Designed to eliminate choppy gameplay and broken frames with fluid, artifact-free performance at virtually any frame rate

Virtual Super Resolution¹

Get visual quality that rivals up to 4K – even on a 1080p display – while playing your favorite games

AMD Radeon™ Dual Graphics¹¹

Combine an AMD A-Series APU with a select discrete Radeon™ R-Series graphics card to enable dramatically boosted graphics and gaming performance.

AMD Eyefinity Technology¹⁰

Expand the limits of desktop computing to enable greater productivity and immersive entertainment with multiple monitors

Frame Rate Target Control⁷

Enables users to set a maximum frame rate, which can reduce GPU power consumption, heat generation and fan speeds.

Vulkan™ and DirectX® 12 with Multi-adapter¹¹

Get more performance and visual fidelity out of your system in games that support DirectX[®] 12 and Vulkan™ APIs

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	ESSENTIAL		MAINSTREAM	ENTHUSIAST			
	AMDA E2	AMDA A4	AMDA A6	AMDA A9	AMDA A10	AMDA A12	
Web browsing & email	✓	✓	✓	✓	✓	✓	
Online videos & social networks	✓	✓	✓	✓	✓	✓	
Watching HD content online	✓	✓	✓	✓	✓	✓	
Editing photos & SD videos		✓	✓	✓	✓	✓	
Multitasking with simple apps			✓	✓	✓	✓	
Enjoying casual games				✓	✓	✓	
Using several advanced apps				✓	✓	✓	
Watching 4k videos & editing HD videos				✓	✓	✓	
3D & online games in console-quality					✓	✓	
Immersive 3D gaming					✓	✓	
Editing 4K videos						✓	

Additional hardware (e.g., Blu-ray drive, HD or 10-bit monitor, USB 3.0 ports, TV tuner, wirelessly enabled HDTV) and/or software (e.g., multimedia applications and/or Wi-Fi access) are required for the full enablement of some features. HD Video display requires an HD video source. Not all features may be supported on all components or systems - check with your component or system manufacturer for specific model capabilities and supported technologies.

- 1. AMD Virtual Super Resolution (VSR) feature is designed to render games at higher resolutions and dynamically rescale them for HD displays at higher quality and visual details. Check with your system manufacturer for specific capabilities. GD-85
- 2. FreeSync is an AMD technology designed to eliminate stuttering and/or tearing in games and videos by locking a display's refresh rate to the framerate of the graphics card. Requires Monitor, AMD Radeon" graphics and/or AMD A-Series APU compliant with DisplayPort" Adaptive-Sync 1.2 (or newer). AMD Catalyst" driver 15.2 Beta (or newer) required. Adaptive refresh rates vary by display; check with your monitor manufacturer for specific capabilities. Only select AMD Radeon GPUs and A-Series APUs supported; see www.mmd.com/freesync for full details. GD-67
- 3. AMD Start Now technology is a BIOS optimized solution designed to deliver better system responsiveness by minimizing the time to wake up the system from sleep mode, boot the system to desktop and connect to a wireless local area network. Actual times will vary based on operating system, APU, driver, disk drive and memory speed. AMD Start Now technology is available with select AMD APUs when running Windows 7 or Windows 8. Check with your component or system manufacturer or retailer for specific model capabilities. GO-46
- DirectX 12 and/or Vulkan application support is required.
- . http://youtube-eng.blogspot.com/2015/04/vp9-faster-better-buffer-free-youtube.html
- HEVC acceleration is subject to inclusion/installation of compatible HEVC players. GD-81
- 7. Frame Rate Target Control is an AMD technology designed to reduce heat, noise and power consumption by letting users set a maximum frame rate for their games and applications. Not currently compatible with AMD Dual Graphics multi-GPU configurations. Confirm supported technologies with system manufacturer before purchase. GD-77
- 8. AMD Secure Processor (formerly "Platform Security Processor" or "PSP") is a dedicated processor that features ARM TrustZone" technology, along with a software-based Trusted Execution Environment (TEE) designed to enable third-party applications. AMD Secure Processor is a hardware-based technology which enables secure boot up from BIOS level into the TEE. Trusted third-party applications are able to leverage industry-standard APIs to take advantage of the TEE's secure execution environment. Not all applications utilize the TEE's security features. AMD Secure Processor is currently only available on select AMD A-Series and AMD E-Series APUs. CD-72
- 9. AMD App Acceleration is a set of technologies designed to improve video quality and enhance application performance. Full enablement of some features requires support for OpenCL" or DirectCompute (including AMD's Unified Video Decoder (UVIV)). Not all products a large features and full enablement of some capabilities may require complementary products. GD-2 10. AMD Eyefinity technology supports up to six DisplayPort monitors on an enabled graphics card. Supported display quantity, type and resolution vary by model and board design. Mixed monitors of different resolutions are supported by select AMD Redecore (VVIV)). Not all products and 89 Series graphics cards. Confirm specifications with manufacturer before purchase. To enable more than two displays, or multiple displays from a single output, additional hardware such as DisplayPort." ready monitors of DisplayPort." ready monitors of DisplayPort. The support of the confirmance of the confirmance
- 1.1. AMD Radeon" Dual Graphics requires one of select AMD A-Series APUs plus one of select AMD Radeon" disengage the discrete graphics processor for dual graphics cards and is available on Windows 8 OS. Linux OS supports manual switching which requires restart of X-Server to engage and/or disengage the discrete graphics processor for dual graphics cards and is available on the master device to which the display is connected. Check with your component or system manufacturer for specific mode capabilities and supported technologies. GD-12

