THE TRENDS DEMAND PERFORMANCE

2.3 BILLION
ACTIVE GAMERS GLOBALLY

2.36 MILLION HOURS
STREAMED ON TWITCH + YOUTUBE IN 1 MONTH

12+ MILLION CREATORS
MEDIA AND ENTERTAINMENT

*SOURCES: NEWZOO - NEWZOO'S 2018 REPORT: INSIGHTS INTO THE $137.9 BILLION GLOBAL GAMES MARKET
NEWZOO - MORE PEOPLE ARE STREAMING ON TWITCH, BUT YOUTUBE IS THE PLATFORM OF CHOICE FOR MOBILE-GAME STREAMERS
AMD - INTERNAL DATA, APRIL 2019

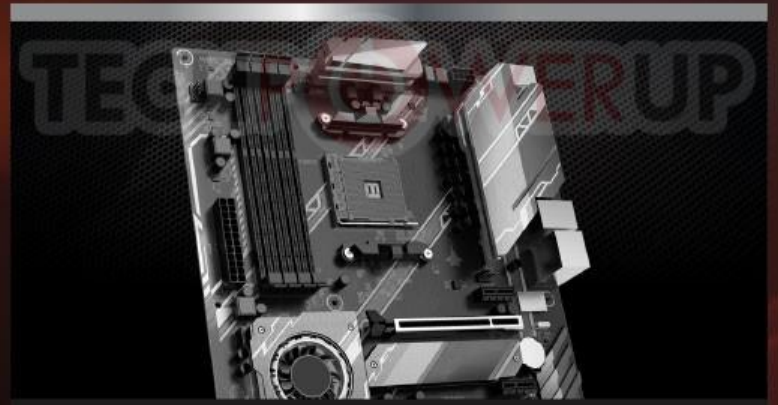
CAUTIONARY STATEMENT

This presentation contains forward-looking statements concerning Advanced Micro Devices, Inc. (AMD) including, but not limited to, the features, functionality, availability, timing, expectations and expected benefits of AMD future products, including 3rd Generation Ryzen™ CPUs, 2nd Generation Ryzen™ Processors with Radeon™ Graphics, and Socket AM4, which are made pursuant to the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are commonly identified by words such as "would," "may," "expects," "believes," "plans," "intends," "projects" and other terms with similar meaning. Investors are cautioned that the forward-looking statements in this presentation are based on current beliefs, assumptions and expectations, speak only as of the date of this presentation and involve risks and uncertainties that could cause actual results to differ materially from current expectations. Such statements are subject to certain known and unknown risks and uncertainties, many of which are difficult to predict and generally beyond AMD's control, that could cause actual results and other future events to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Investors are urged to review in detail the risks and uncertainties in AMD's Securities and Exchange Commission filings, including but not limited to AMD's Annual Report on Form 10-K for the year ended December 29, 2018.

TECHPOWERUP

THE ULTIMATE USER EXPERIENCE

ELITE PERFORMANCE



UNPARALLELED PLATFORM

ENTHUSIAST FEATURES

THE 3RD GEN AMD RYZEN™ FAMILY

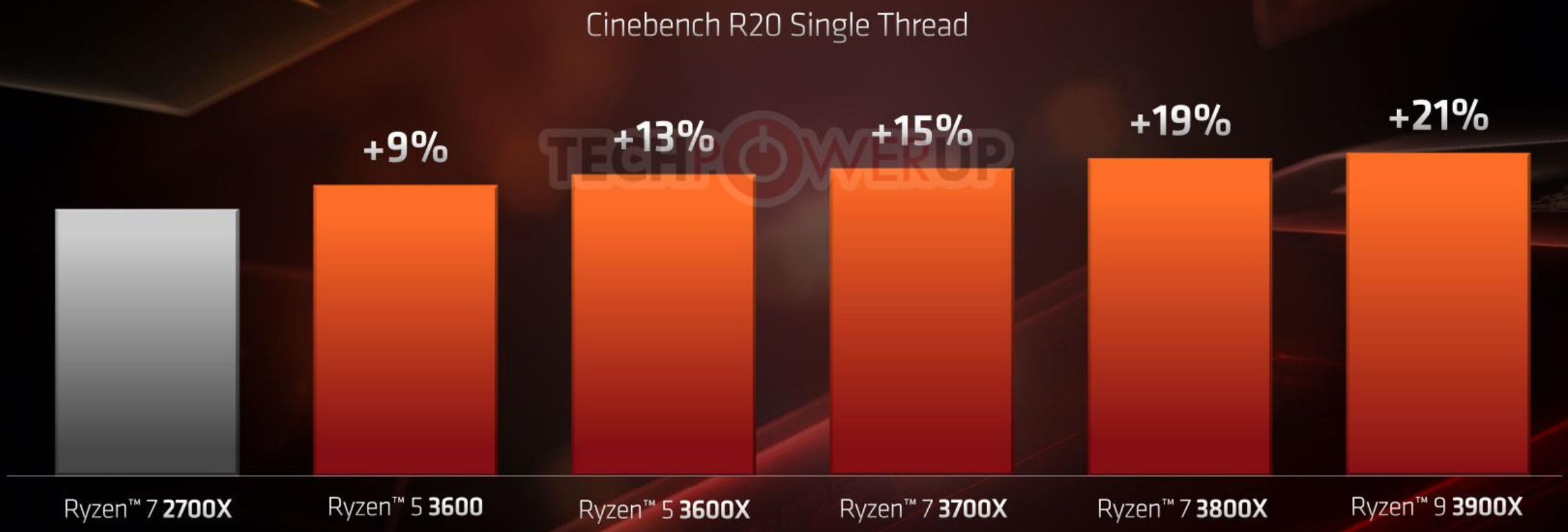
MORE CORES, MORE CACHE, MORE TECH

$499 USD	AMD Ryzen™ 9 3900X	$499 USD	Core i9-9900K
$399 USD	AMD Ryzen™ 7 3800X	$385 USD	Core i7-9700K
$329 USD	AMD Ryzen™ 7 3700X		
$249 USD	AMD Ryzen™ 5 3600X	$263 USD	Core i5-9600K
$199 USD	AMD Ryzen™ 5 3600X	$224 USD	Core i5-9600

TECHPOWERUP

UP TO 21% MORE 1T PERFORMANCE

WITH 3RD GEN AMD RYZEN™ PROCESSORS

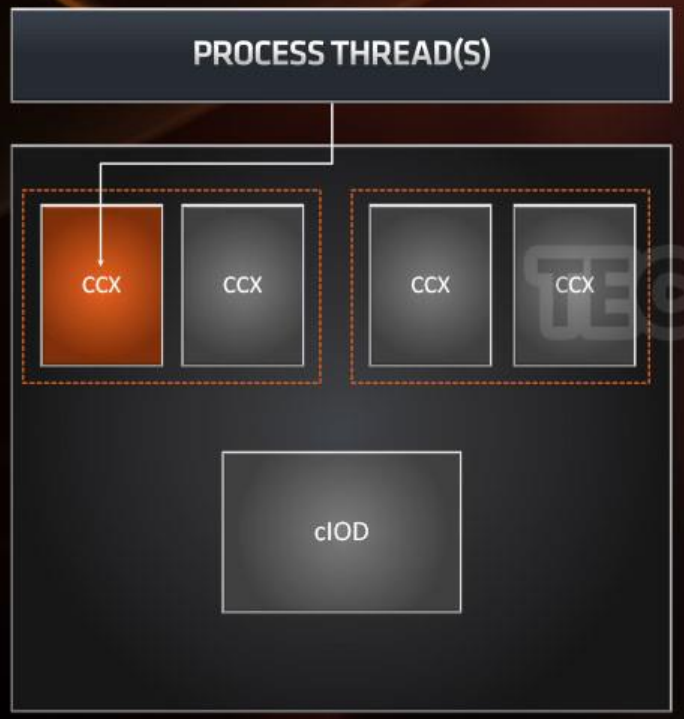


TECHPOWERUP

* SEE ENDNOTES: RZ3-25

WINDOWS® 10 OPTIMIZED FOR "ZEN"

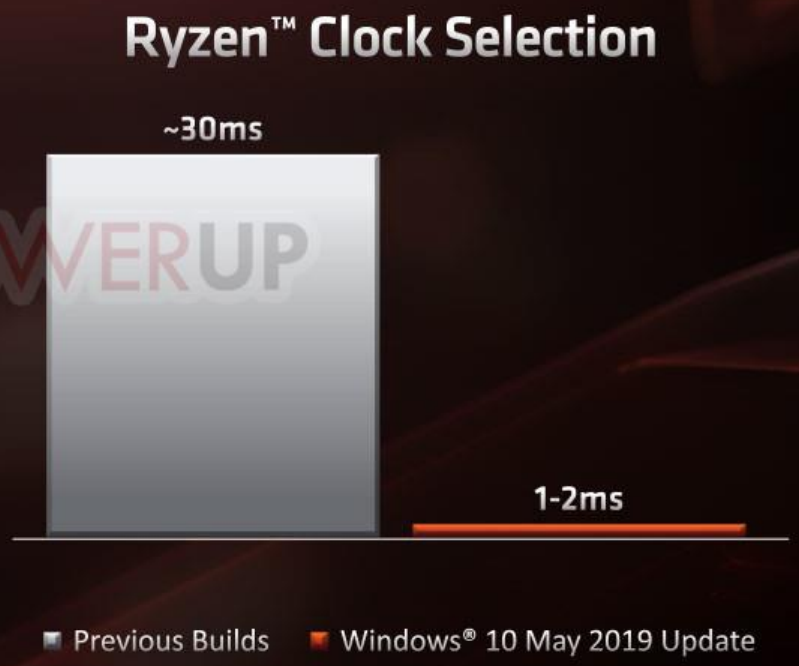
NEW FOR RYZEN™ IN WINDOWS® 10 MAY 2019 UPDATE



TOPOLOGY AWARENESS

Fill A CCX Before Using Another

All AMD Ryzen™ Processors



FASTER CLOCK RAMPING

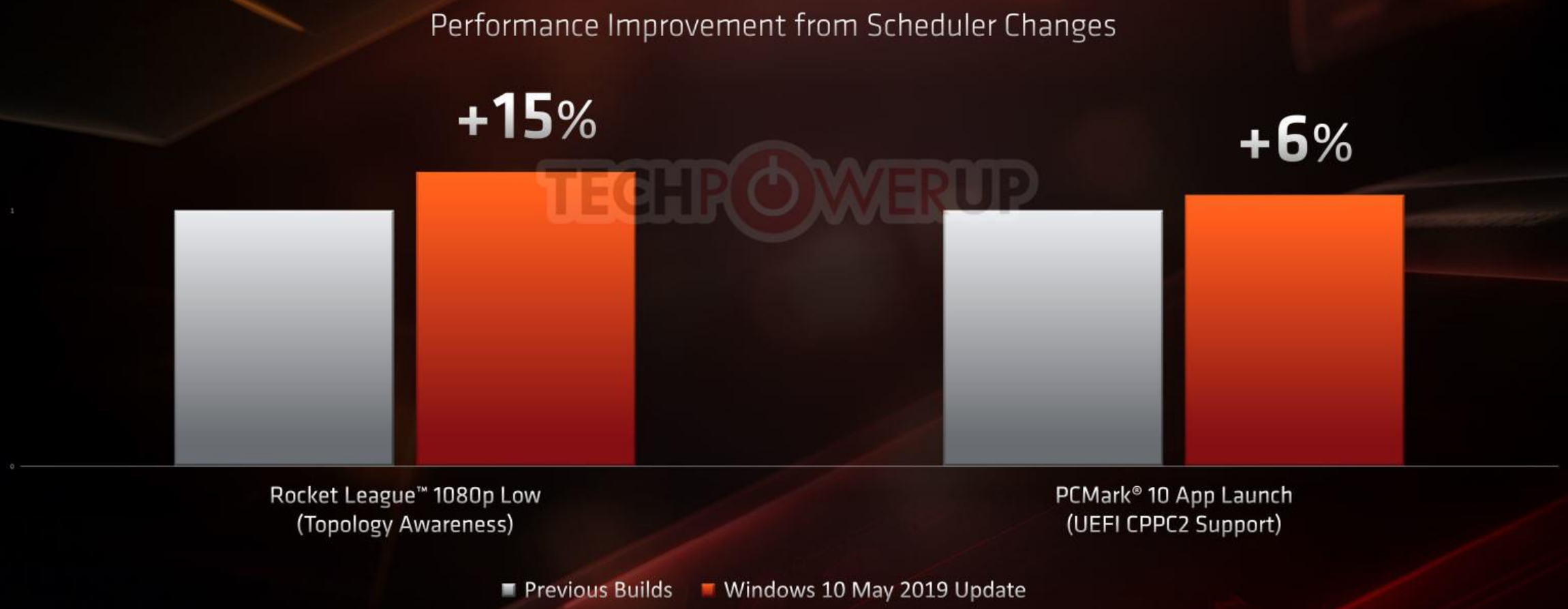
UEFI CPPC2 Support for ~20X Faster Clock Selection

3rd Gen AMD Ryzen™ Processors

TECHPOWERUP

WINDOWS® 10 OPTIMIZED FOR "ZEN"

NEW FOR RYZEN™ IN WINDOWS® 10 MAY 2019 UPDATE



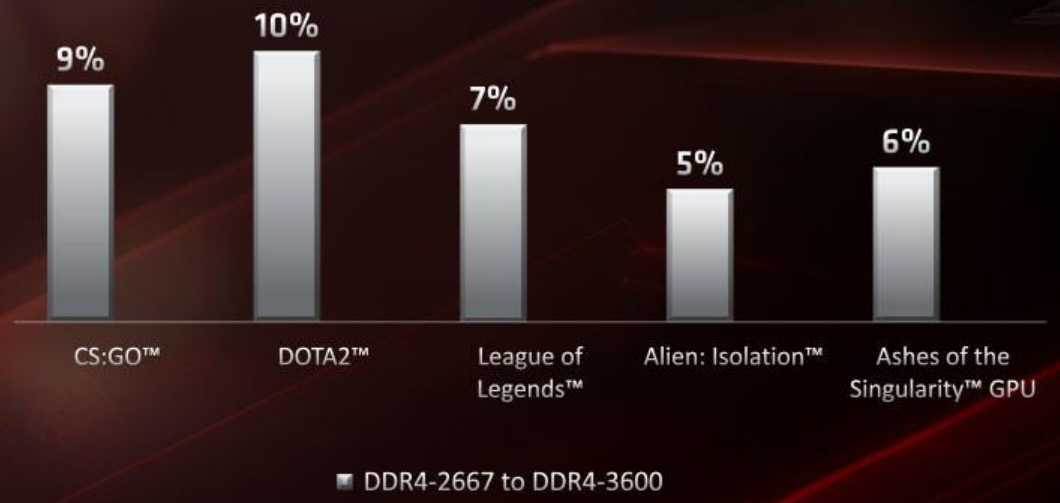
TECHPOWERUP

* SEE ENDNOTES: RZ3-27

LOWER DRAM LATENCY WITH AMD GAMECACHE

- L3 cache sizes doubled in "Zen 2"
- Reduces effective memory latency by up to 33ns
- Drives up to 21% higher gaming performance

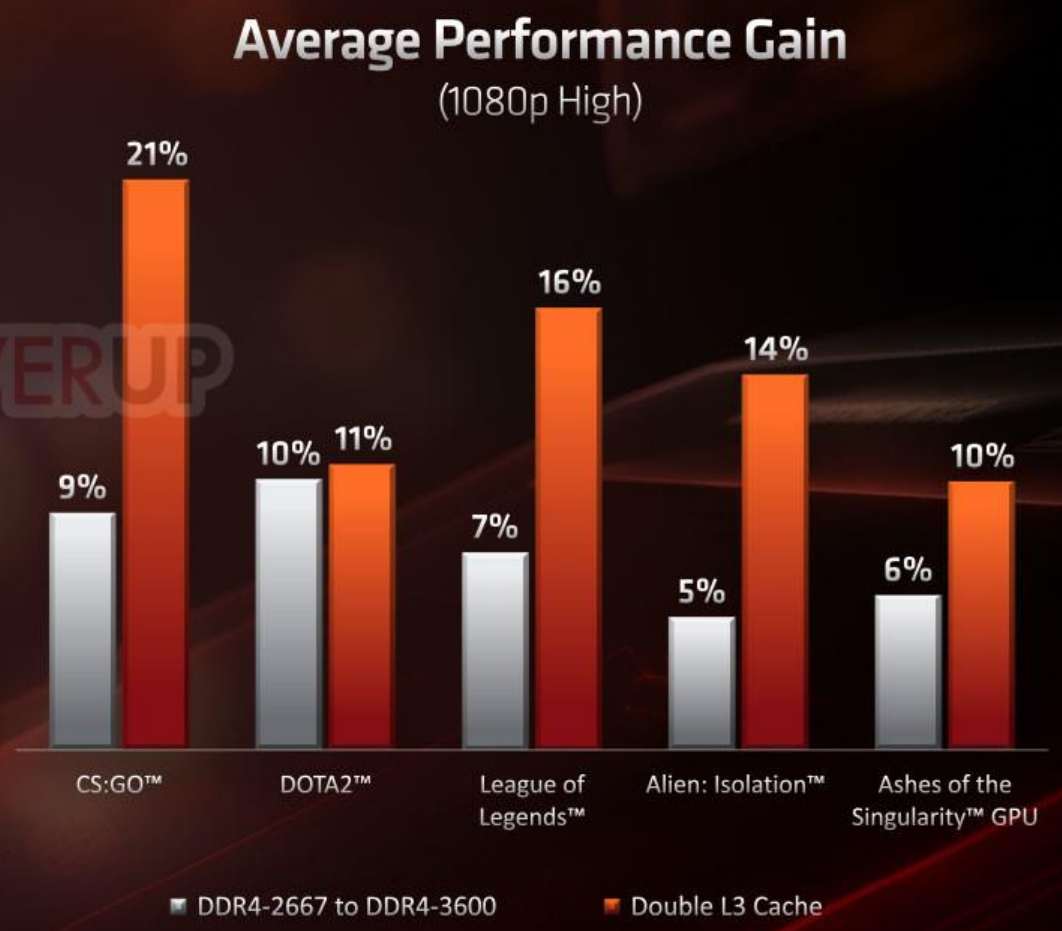
TECHPOWERUP



* SEE ENDNOTES: RZ3-16

LOWER DRAM LATENCY WITH AMD GAMECACHE

- L3 cache sizes doubled in "Zen 2"
- Reduces effective memory latency by up to 33ns
- Drives up to 21% higher gaming performance



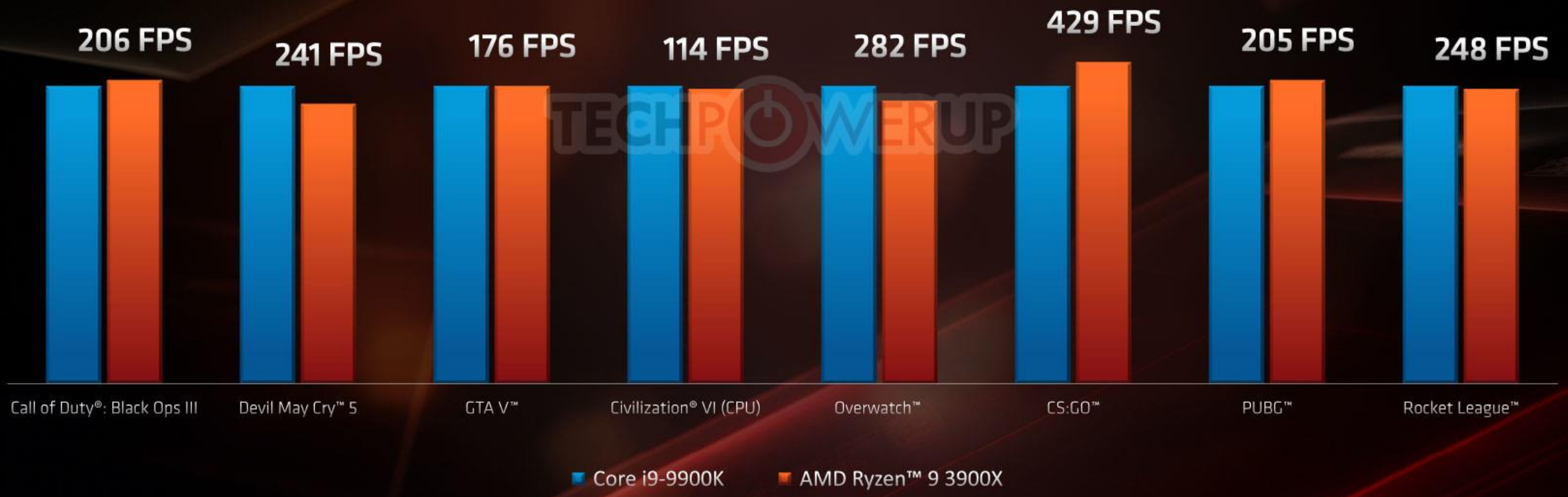
TECHPOWERUP

* SEE ENDNOTES: RZ3-16

AMD RYZEN™ 9 3900X
THE NEW DESKTOP
PERFORMANCE LEADER
12 Cores
24 Threads
4.6 GHz Boost
3.8 GHz Base
70 MB
GameCache
105W TDP
AMD
RYZEN
TECHPOWERUP

3RD GEN AMD RYZEN™ 9 PROCESSORS

ELITE 1080P GAMING AT $499 USD

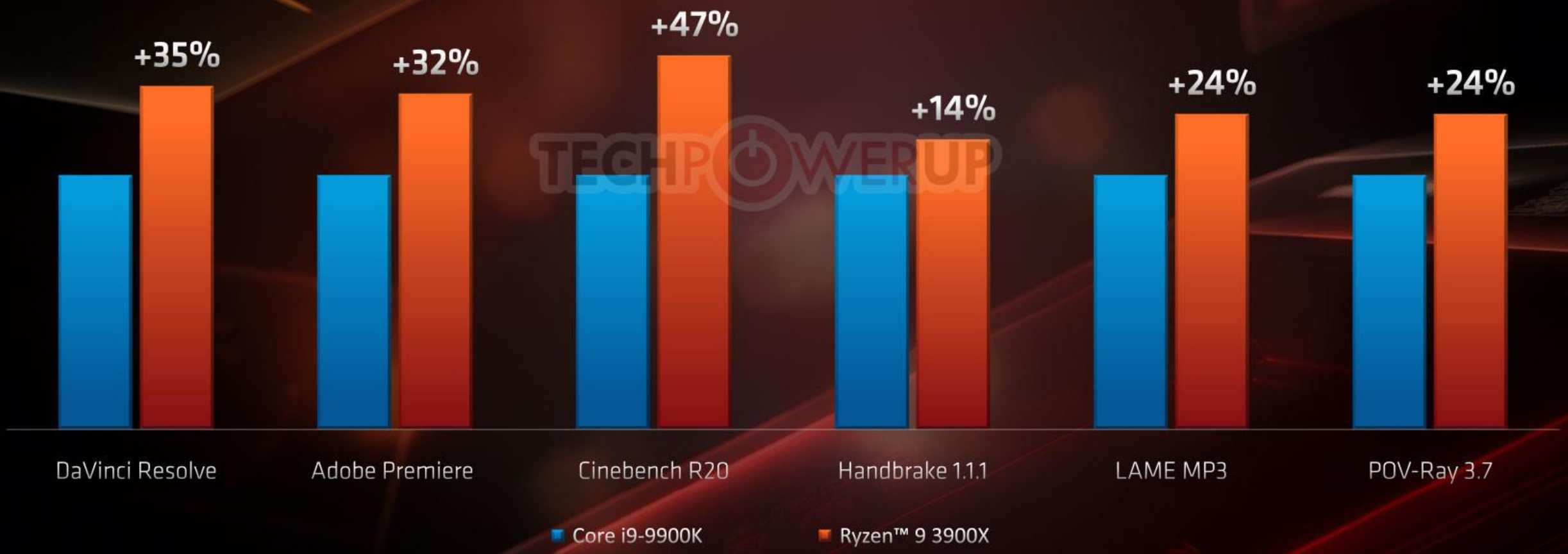


TECHPOWERUP

* SEE ENDNOTES: RZ3-28

3RD GEN AMD RYZEN™ 9 PROCESSORS

WINNING FOR CREATORS AT $499

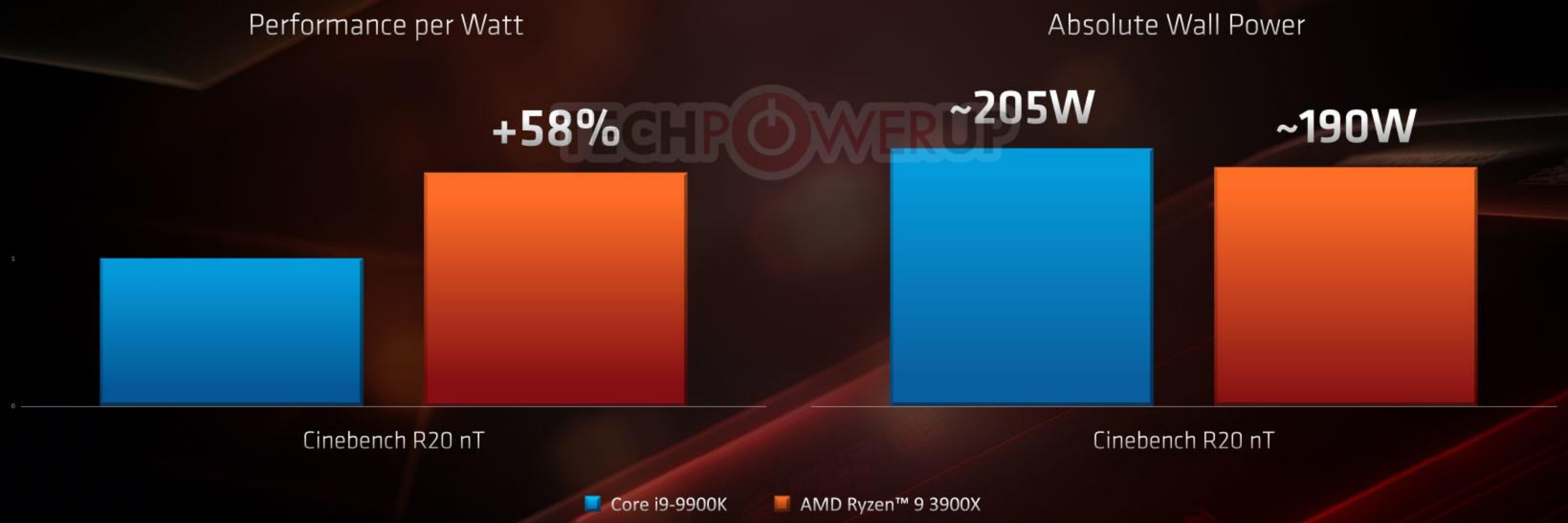


TECHPOWERUP

* SEE ENDNOTES: RZ3-30

A COOLER AND QUIETER PC

RYZEN™ 9 PROCESSORS ARE UP TO 58% MORE EFFICIENT THAN CORE i9



TECHPOWERUP

* SEE ENDNOTES: RZ3-31

AMD RYZEN™ 9 3900X

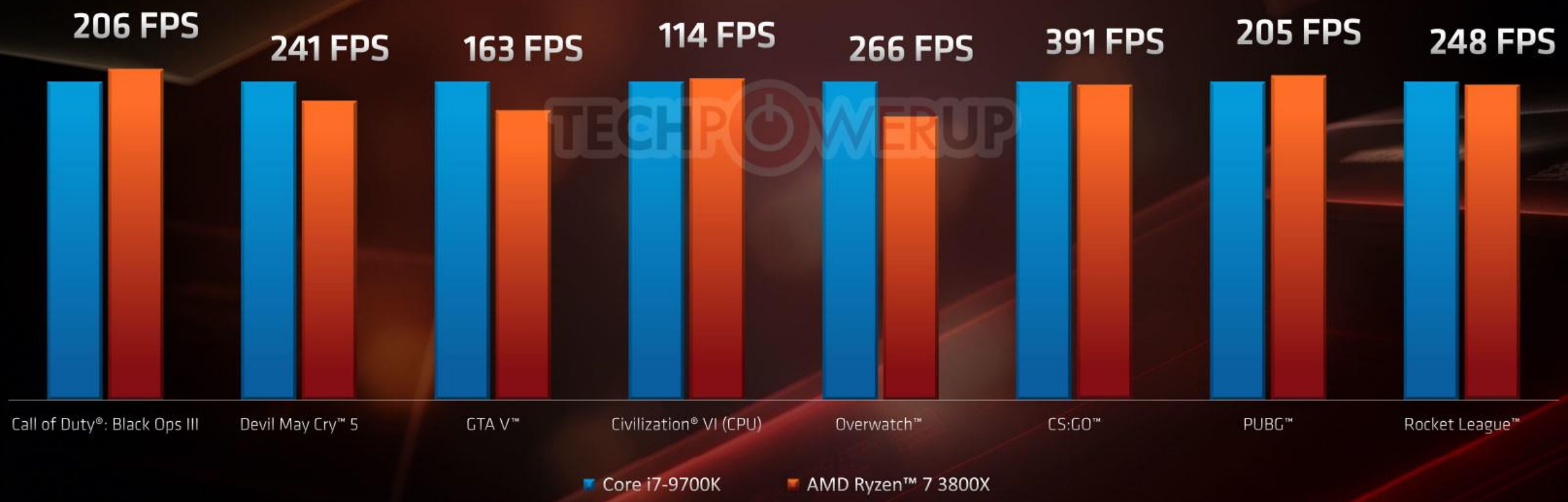
COMPARABLE	+47%	+58%	FIRST
Gaming Performance	Creator Performance	Energy Efficiency	To PCIe® 4.0
Compared to Core i9-9900K	*Compared to Core i9-9900K*	*Compared to Core i9-9900K*	
1080p GAMING	CONTENT CREATION	PERFORMANCE PER WATT	BEST-IN-CLASS PLATFORM

* SEE ENDNOTES: RZ3-28,30,31

AMD RYZEN™ 7 3800X
EIGHT CORES, PERFECTED
8 Cores
16 Threads
4.5 GHz Boost
3.9 GHz Base
36 MB
GameCache
105W TDP
AMD
RYZEN

3RD GEN AMD RYZEN™ 7 PROCESSORS

ELITE 1080P GAMING AT $399

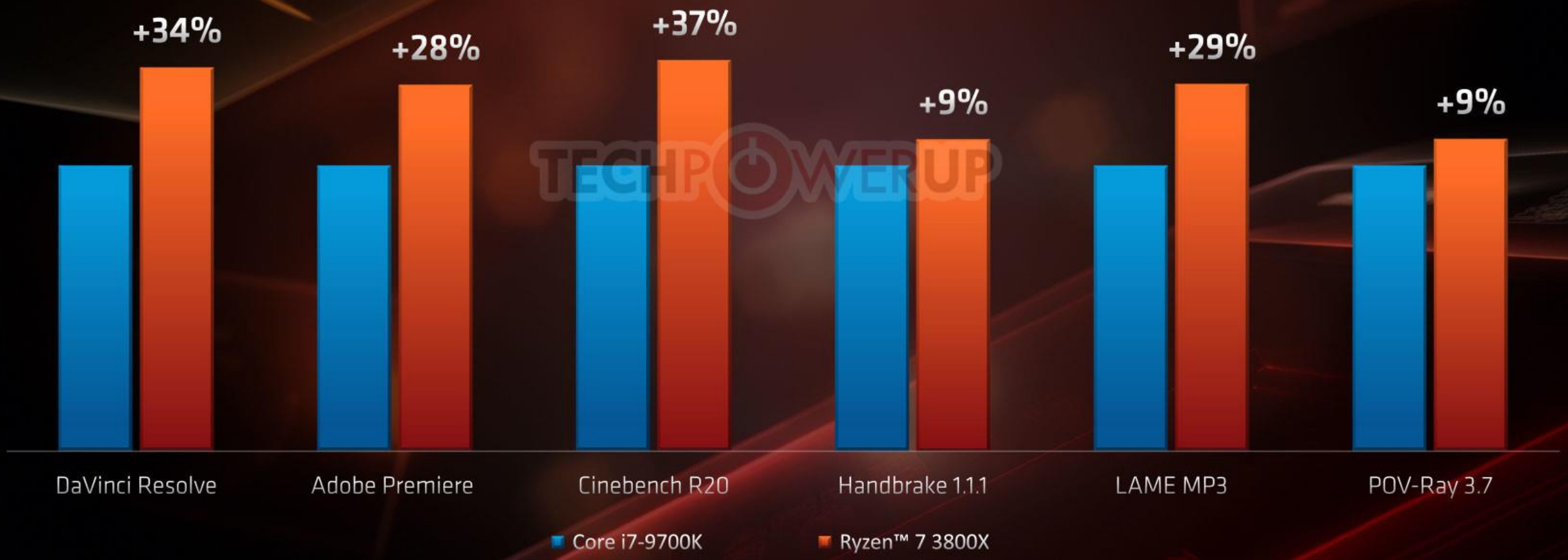


TECHPOWERUP

* SEE ENDNOTES: RZ3-32

3RD GEN AMD RYZEN™ 7 PROCESSORS

WINNING FOR CREATORS AT $399

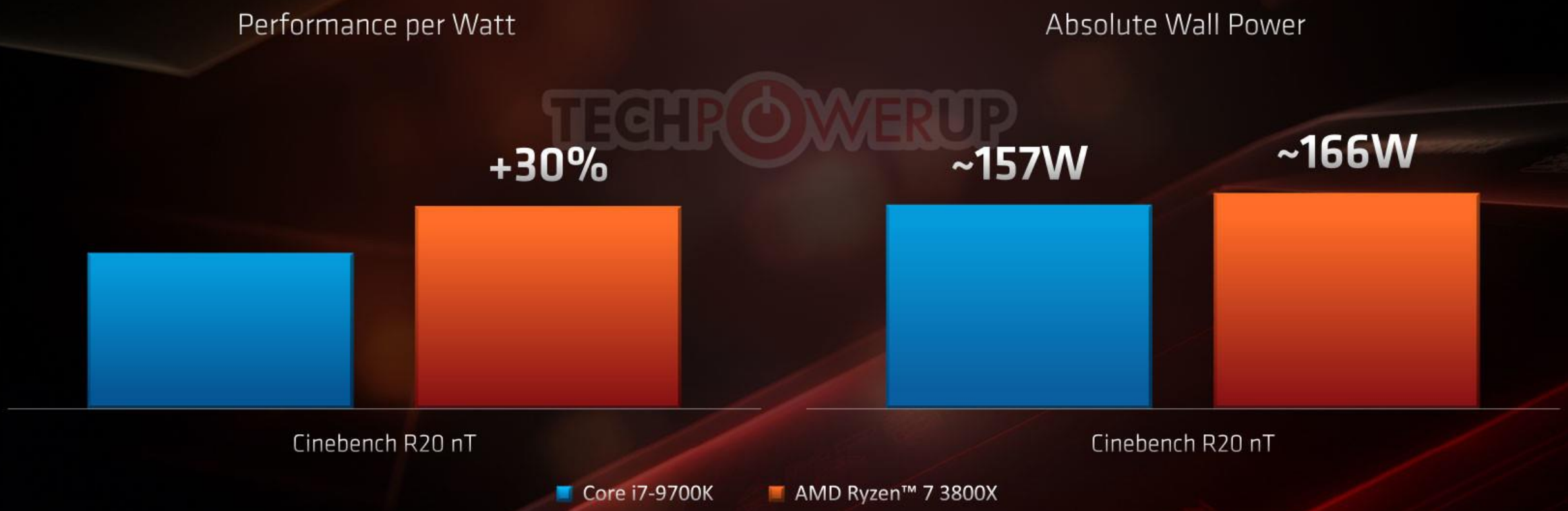


TECHPOWERUP

* SEE ENDNOTES: RZ3-34

A COOLER AND QUIETER PC

RYZEN™ 7 PROCESSORS ARE UP TO 30% MORE EFFICIENT THAN CORE i7



TECHPOWERUP

* SEE ENDNOTES: RZ3-35

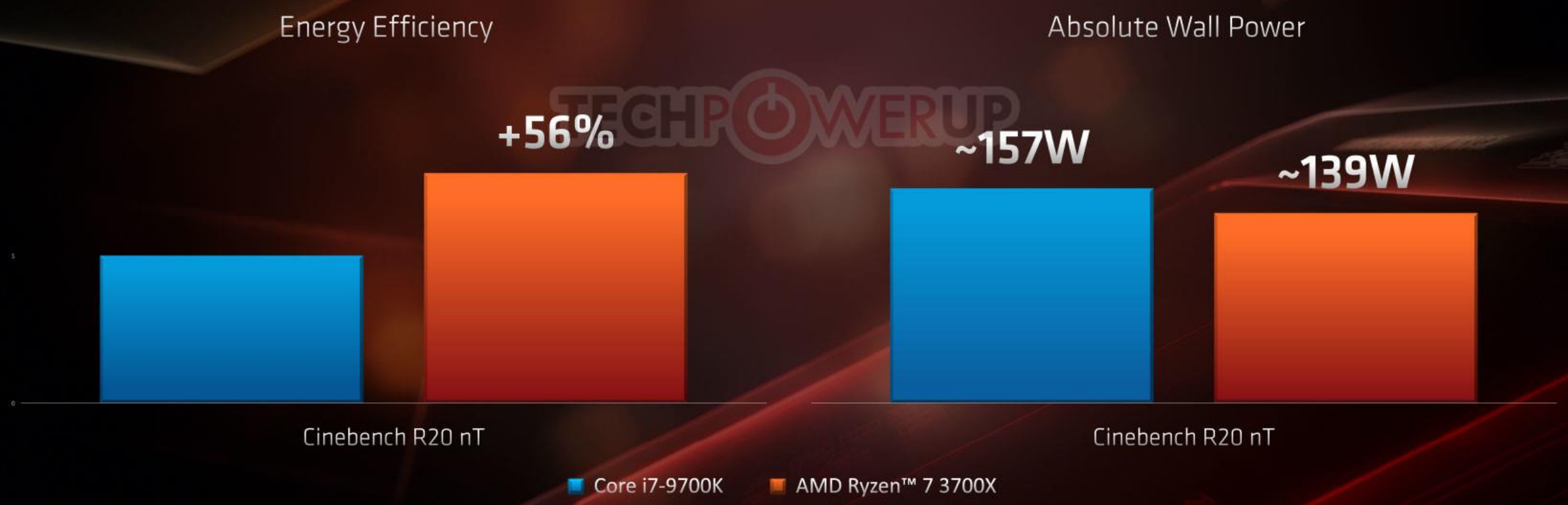
AMD RYZEN™ 7 3800X

COMPARABLE	+37%	+30%	FIRST
Gaming Performance	Creator Performance	Energy Efficiency	To PCIe® 4.0
Compared to Core i7-9700K	*Compared to Core i7-9700K*	*Compared to Core i7-9700K*	
1080p GAMING	CONTENT CREATION	PERFORMANCE PER WATT	BEST-IN-CLASS PLATFORM

* SEE ENDNOTES: RZ3-32,34,35

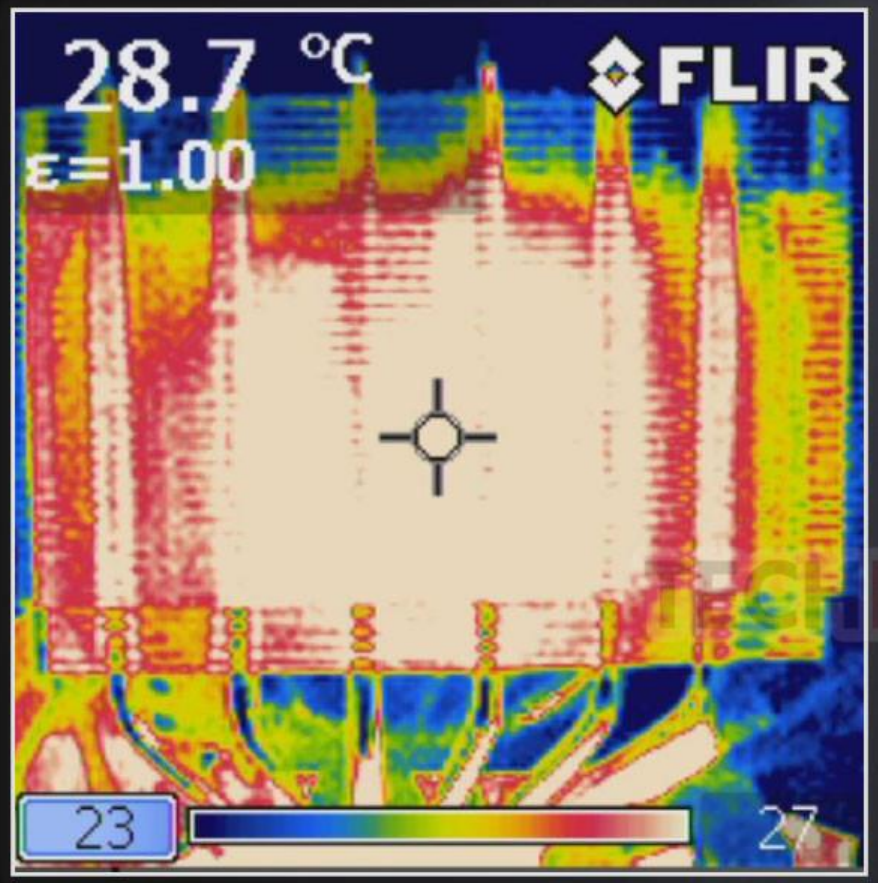
A COOLER AND QUIETER PC

RYZEN™ 7 PROCESSORS ARE UP TO 56% MORE EFFICIENT THAN CORE i7

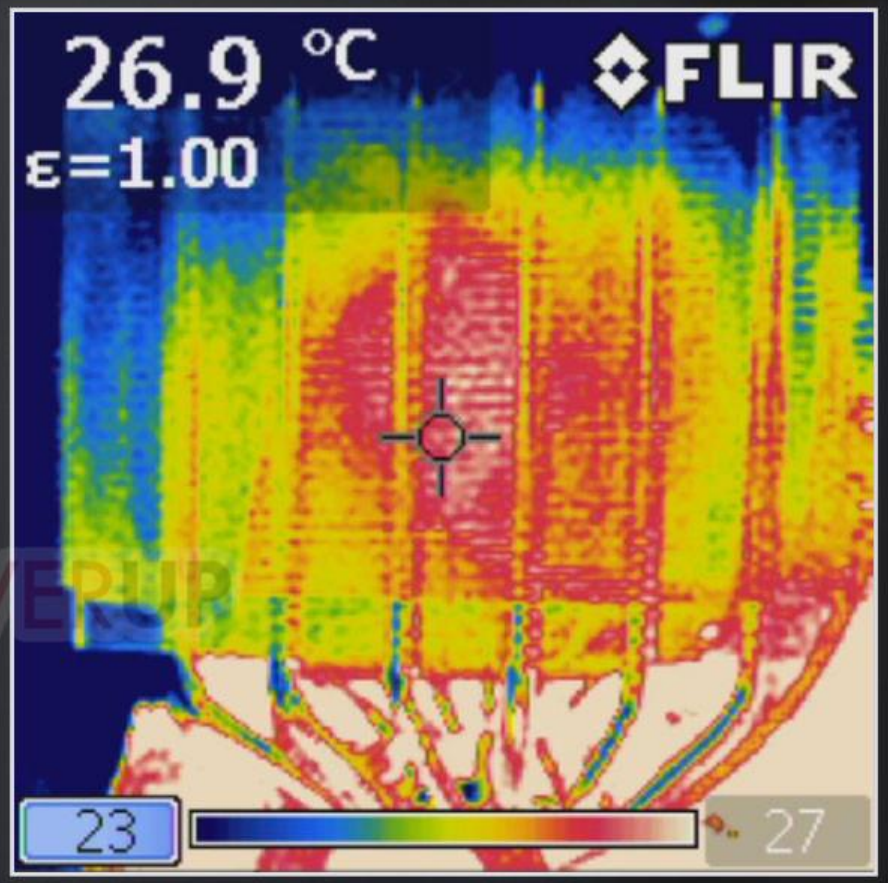


TECHPOWERUP

* SEE ENDNOTES: RZ3-36



CORE i7-9700K



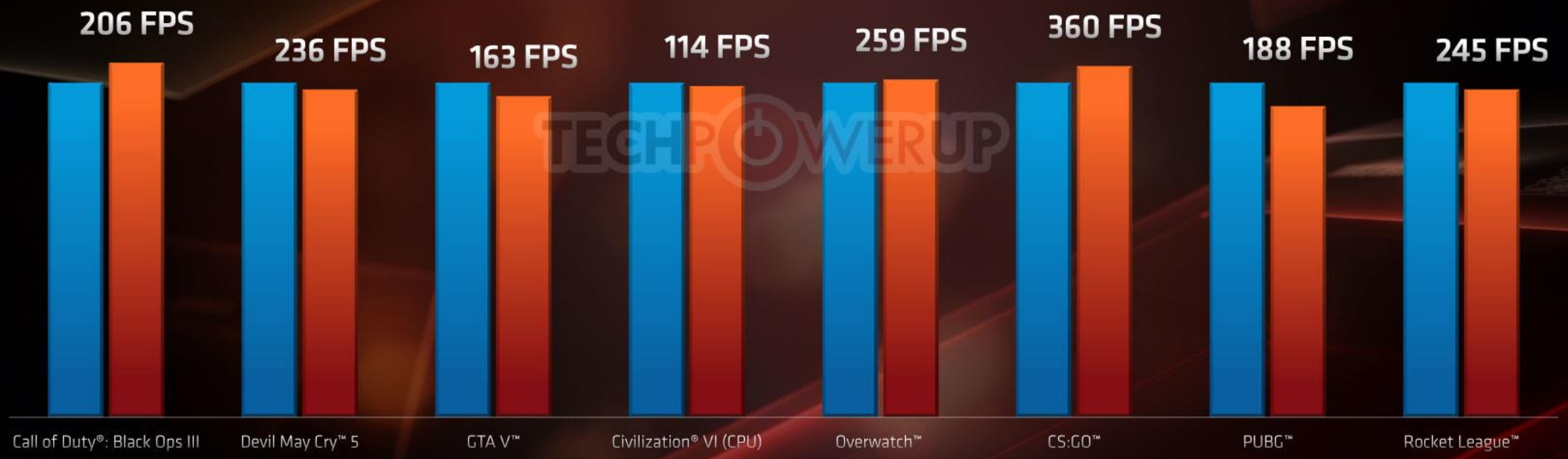
AMD RYZEN™ 7 3700X

MORE PERFORMANCE
MORE EFFICIENT
LOWER TEMPS

TECHPOWERUP

3RD GEN AMD RYZEN™ 5 PROCESSORS

ELITE 1080P GAMING AT $249

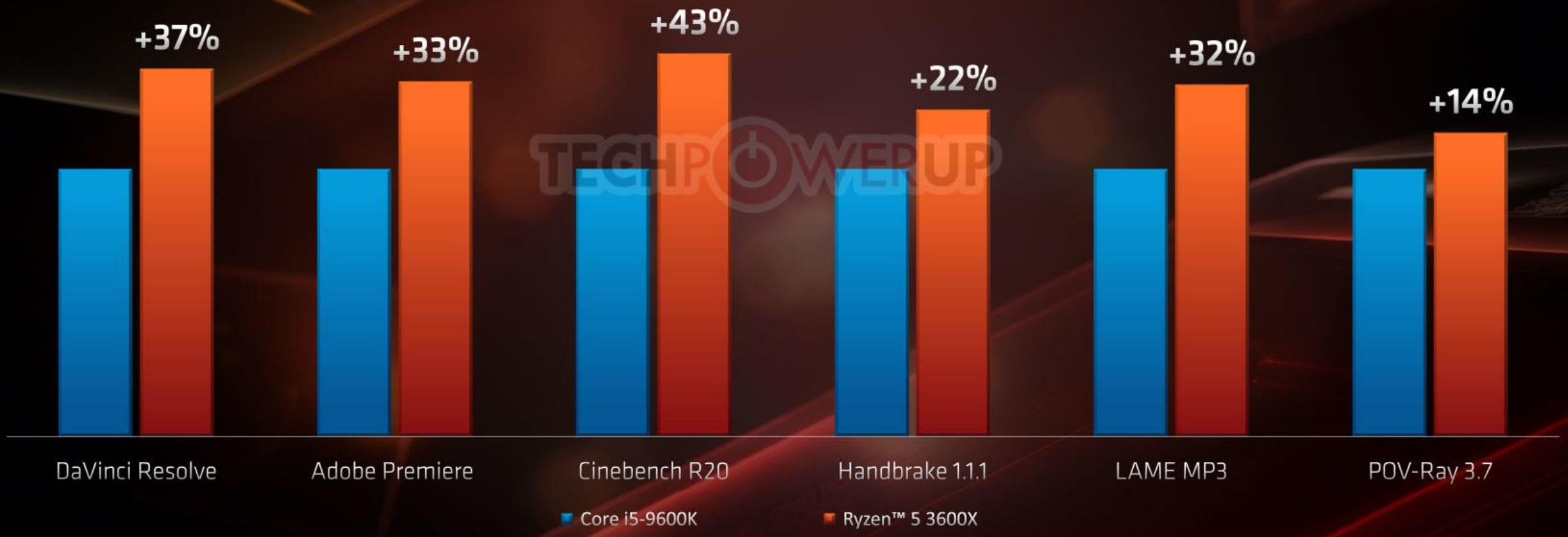


TECHPOWERUP

* SEE ENDNOTES: RZ3-37

3RD GEN AMD RYZEN™ 5 PROCESSORS

WINNING FOR CREATORS AT $249



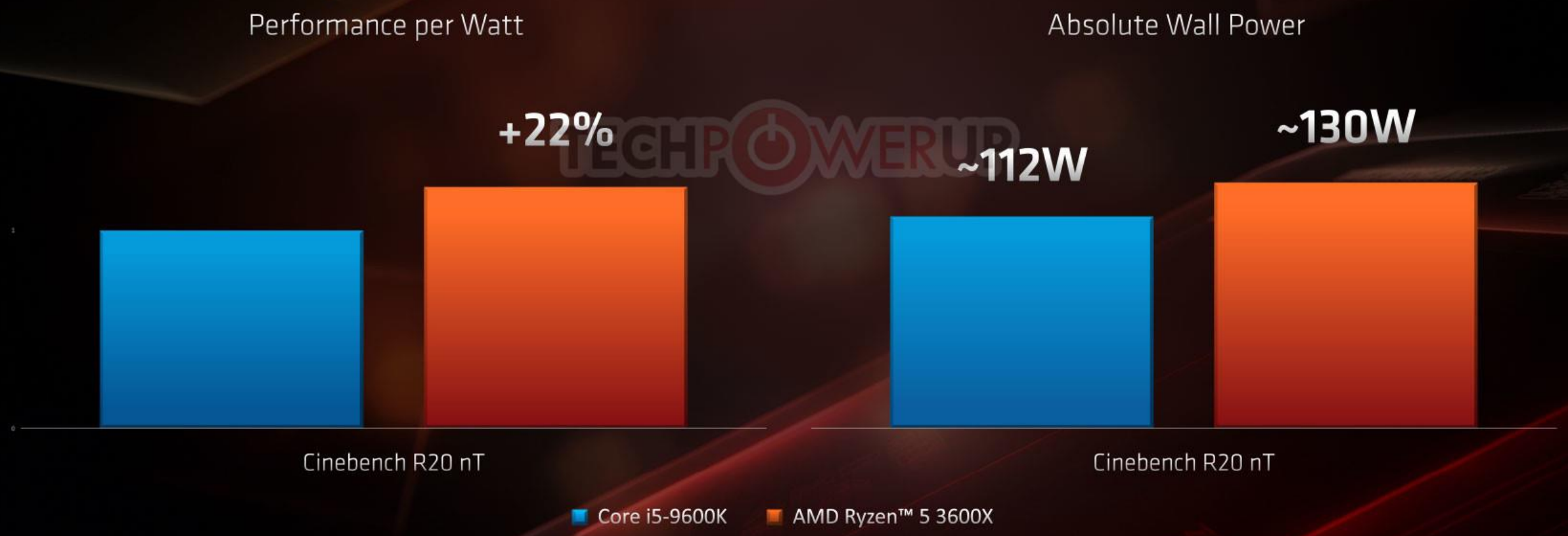
TECHPOWERUP

* SEE ENDNOTES: RZ3-38

AMD RYZEN™ 5 3600X
ENTHUSIAST PERFORMANCE
FOR EVERYBODY
6 Cores
12 Threads
4.4 GHz Boost
3.8 GHz Base
35 MB
GameCache
95W TDP
AMD
RYZEN

A COOLER AND QUIETER PC

RYZEN™ 5 PROCESSORS ARE UP TO 22% MORE EFFICIENT THAN CORE i5



TECHPOWERUP

* SEE ENDNOTES: RZ3-39

AMD RYZEN™ 5 3600X

COMPARABLE	+43%	+22%	FIRST
Gaming Performance	Creator Performance	Energy Efficiency	To PCIe® 4.0
Compared to Core i5-9600K	*Compared to Core i5-9600K*	*Compared to Core i5-9600K*	
1080p GAMING	CONTENT CREATION	PERFORMANCE PER WATT	BEST-IN-CLASS PLATFORM

* SEE ENDNOTES: RZ3-37,38,39

AMD AM4 PLATFORM

THE MOST FLEXIBLE PLATFORM FOR GAMERS

USER CHOICE

150+ Motherboards Available

INCREDIBLY SCALABLE

Supports Zen, Zen+, Zen 2

HIGHLY CUSTOMIZABLE

Exclusive Tweaking & Tuning Options

AMD X570 PLATFORM

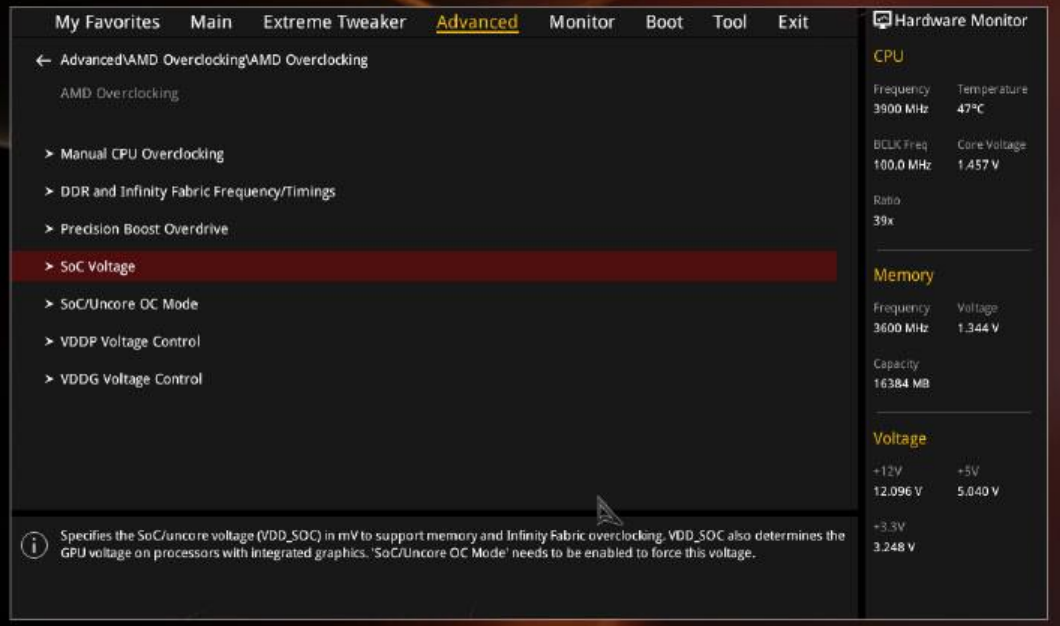
THE MOST MODERN I/O

16x Graphics PCIe® 4.0 Lanes
8x General Purpose PCIe® 4.0 Lanes
12x SuperSpeed USB 10Gbps Ports
4x Hi-Speed USB 480Mbps Ports

12x Flexible PCIe® 4.0 Lanes:
2x4 NVMe + 4x SATA 6Gbps
1x4 NVMe + 8 SATA 6Gbps
3x4 NVMe

Configuration varies by motherboard

4x SATA 6Gbps Ports
1x4 PCIe® 4.0 Uplink to CPU
1x4 PCIe® 4.0 Downlink to Chipset



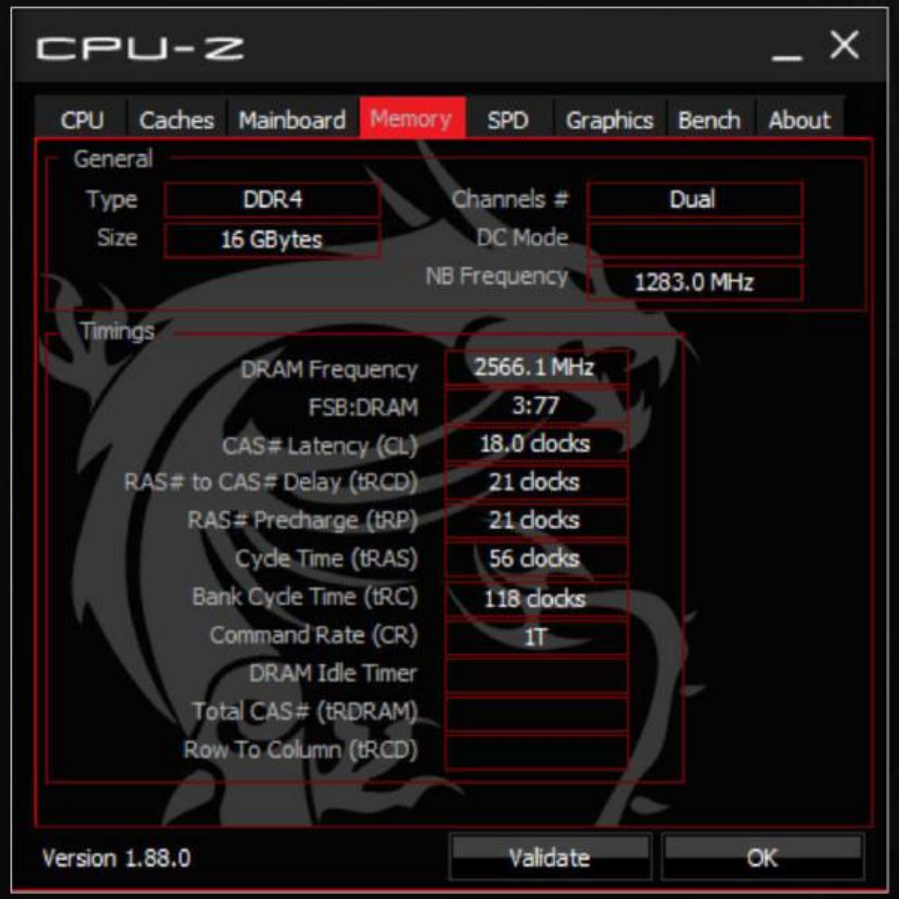
BIOS OVERCLOCKING

EASIER. FASTER. INTUITIVE.

- New OC menu: one-stop shop for tweaking
- Simple help text for 50+ settings
- Common to all motherboards with the AMD X570 chipset

TECHPOWERUP

* CPU OVERCLOCKING NOT SUPPORTED BY AMD PRODUCT WARRANTY. SEE ENDNOTE: GD-106.



MSI MEG X570 GODLIKE

MASSIVE MEMORY OVERCLOCKING

- Achieving **DDR4-5100** on air
- New memory controller design
- Optimized trace routing in motherboards with AMD X570
- New DRAM/Infinity Fabric frequency dividers

TECHPOWERUP

* MEMORY OVERCLOCKING NOT SUPPORTED BY AMD PRODUCT WARRANTY. SEE ENDNOTE GD-112.

EASIER WINDOWS® OVERCLOCKING

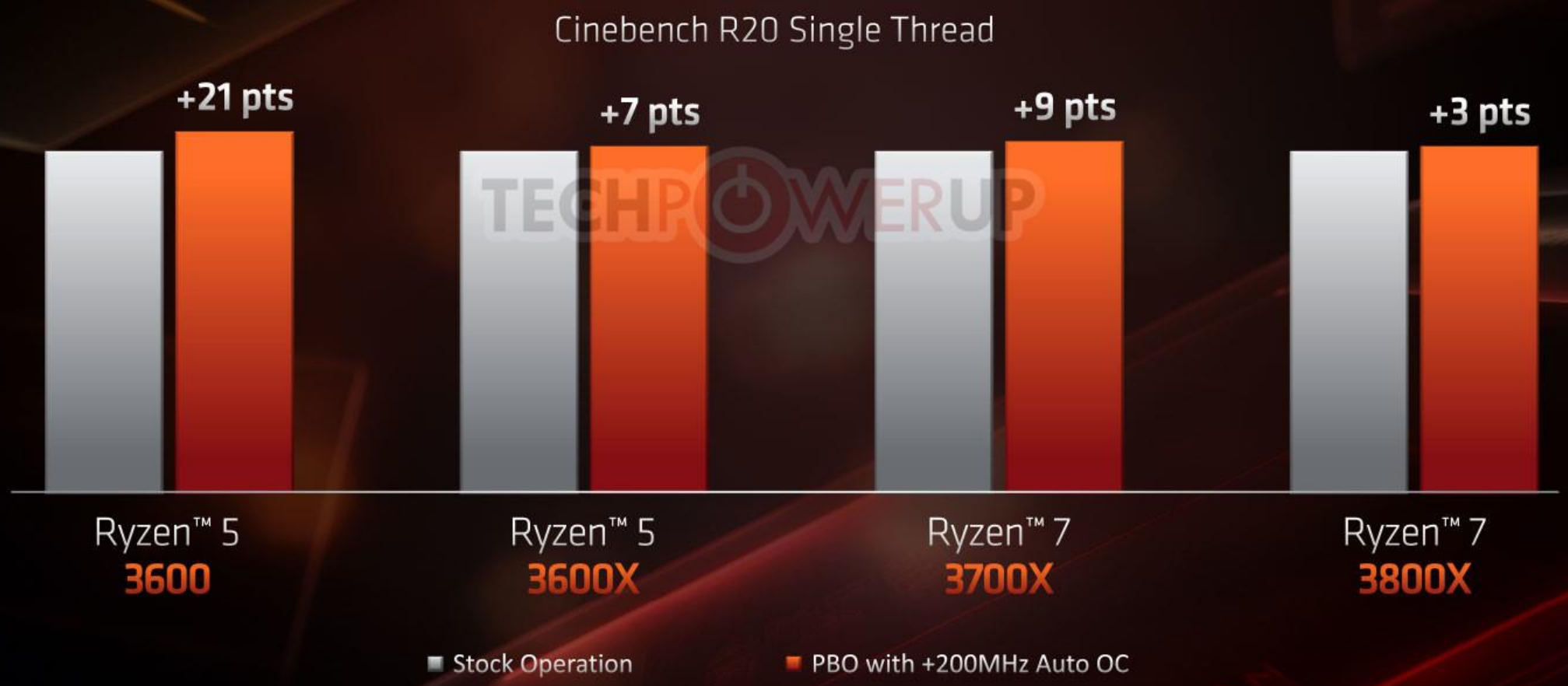
- Full DRAM timing control with profile import/export
- New Precision Boost Overdrive + Auto OC support
- Full view of CPU power management, including cc6 sleep

TECHPOWERUP

* OVERCLOCKING AND PRECISION BOOST OVERDRIVE NOT SUPPORTED BY AMD PROCESSOR PRODUCT WARRANTY. SEE ENDNOTE GD-135 AND GD-106.

PRECISION BOOST OVERDRIVE

WITH +200MHZ AUTOMATIC OVERCLOCKING

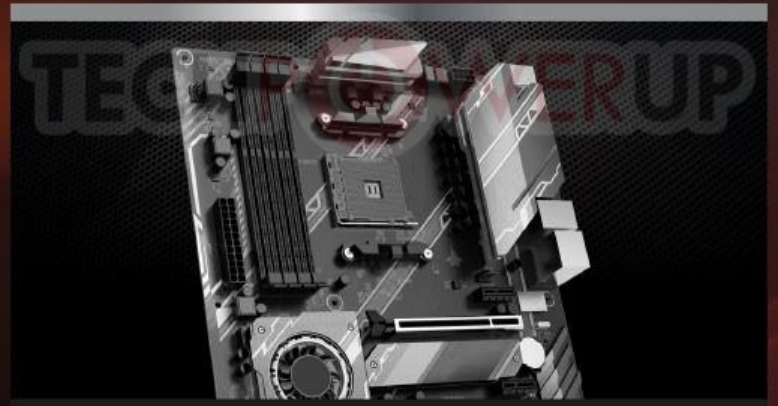


TECHPOWERUP

* SEE ENDNOTES: RZ3-40

THE ULTIMATE USER EXPERIENCE

ELITE PERFORMANCE FOR EVERYONE



UNPARALLELED PLATFORM

UNIQUE TUNING & OC FEATURES

ENDNOTES

GD-106

Overclocking AMD processors, including without limitation, altering clock frequencies / multipliers or memory timing / voltage, to operate beyond their stock specifications will void any applicable AMD product warranty, even when such overclocking is enabled via AMD hardware and/or software. This may also void warranties offered by the system manufacturer or retailer. Users assume all risks and liabilities that may arise out of overclocking AMD processors, including, without limitation, failure of or damage to hardware, reduced system performance and/or data loss, corruption or vulnerability. GD-106

GD-112

Overclocking memory will void any applicable AMD product warranty, even if such overclocking is enabled via AMD hardware and/or software. This may also void warranties offered by the system manufacturer or retailer or motherboard vendor. Users assume all risks and liabilities that may arise out of overclocking memory, including, without limitation, failure of or damage to RAM/hardware, reduced system performance and/or data loss, corruption or vulnerability. GD-112

GD-135

Precision Boost Overdrive requires an AMD Ryzen Threadripper, AMD Ryzen 5 3000, AMD Ryzen 7 3000, or AMD Ryzen 9 3000 Series processor and a motherboard compatible with one or more of these processors. Because Precision Boost Overdrive enables operation of the processor outside of specifications and in excess of factory settings, use of the feature invalidates the AMD product warranty and may also void warranties offered by the system manufacturer or retailer. GD-135

RZ3-16

Testing by AMD performance labs using an AMD Ryzen™ 7 3800X with 16MB L3 cache and 32MB L3 cache at both 2667 MT/s and 3600 MT/s memory speeds. Results may vary. RZ3-16

RZ3-27

Testing by AMD Performance Labs comparing the performance of Windows® 10 October 2018 Update versus Windows® 10 May 2019 Update on the AMD Ryzen™ 7 3800X in Rocket League™ and PCMark® 10 app launch and web browsing sub-tests. RZ3-27

RZ3-28

Testing by AMD performance labs using an AMD Ryzen™ 9 3900X and Core i9-9900K. All games tested at 1920x1080 with maximum in-game quality preset. Results may vary. RZ3-28

RZ3-30

Testing by AMD performance labs using an AMD Ryzen™ 9 3900X and Core i9-9900K in: DaVinci Resolve, Adobe Premiere, Cinebench R20, Handbrake 1.1.1, LAME MP3 Encoder, and POV-Ray 3.7. Results may vary. RZ3-30

RZ3-31

Testing by AMD performance labs using an AMD Ryzen™ 9 3900X and Core i9-9900K, measuring wall power during Cinebench R20 nT. Results may vary. RZ3-31

RZ3-32

Testing by AMD performance labs using an AMD Ryzen™ 7 3800X and Core i7-9700K. All games tested at 1920x1080 with maximum in-game quality preset. Results may vary. RZ3-32

ENDNOTES

RZ3-34
Testing by AMD performance labs using an AMD Ryzen™ 7 3800X and Core i7-9700K in: DaVinci Resolve, Adobe Premiere, Cinebench R20, Handbrake 1.1.1, LAME MP3 Encoder, and POV-Ray 3.7. Results may vary. RZ3-34

RZ3-35
Testing by AMD performance labs using an AMD Ryzen™ 7 3800X and Core i7-9700K, measuring wall power during Cinebench R20 nT. Results may vary. RZ3-35

RZ3-36
Testing by AMD Performance Labs as of 06/03/2019 utilizing an AMD Ryzen™ 7 3700X and Core i7-9700K, measuring system wall power while running Cinebench R20 nT. RZ3-36

RZ3-37
Testing by AMD performance labs using an AMD Ryzen™ 5 3600X and Core i5-9600K. All games tested at 1920x1080 with maximum in-game quality preset. Results may vary. RZ3-37

RZ3-38
Testing by AMD performance labs using an AMD Ryzen™ 5 3600X and Core i5-9600K in: DaVinci Resolve, Adobe Premiere, Cinebench R20, Handbrake 1.1.1, LAME MP3 Encoder, and POV-Ray 3.7. Results may vary. RZ3-38

RZ3-39
Testing by AMD performance labs using an AMD Ryzen™ 5 3600X and Core i5-9600K, measuring wall power during Cinebench R20 nT. Results may vary. RZ3-39

RZ3-40
Testing by AMD performance labs using an AMD Ryzen™ 5 3600 and 3600X, Ryzen™ 7 3700X and 3800X at stock OOB operation versus Precision Boost Overdrive with +200MHz Automatic OC in Cinebench R20 1T. Results may vary. RZ3-40

RZ3-44
Testing by AMD Performance Labs as of 06/03/2019 utilizing a Ryzen™ 5 3600 and Radeon™ RX 5700 running in PCIe® Gen 4 mode vs. Gen 3 mode. Results may vary. RZ3-44

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