



NO. 1 GAMING BRAND WORLDWIDE



# ASUS GeForce® RTX 20 Series TURING™ TRIPLE THREAT

4K UHD  
3840x2160



## DUAL

Wing-blade Fans with IP5X Dust Resistance  
High static pressure, low noise, and 0dB fan-stop mode

### 2.7-Slot Design

50% more heatsink surface area compared to last gen

### Protective Backplate

Reinforces the graphics card to prevent PCB flex and trace damage



## ROG STRIX

Axial-tech Fans\* with IP5X Dust Resistance  
Improved airflow and dispersion, ultra-low noise, and 0dB fan-stop mode

MaxContact Technology with 2.7-Slot Design\*\*  
Massive heatsink and precision-machined copper plate for improved thermal transfer

### Auto-Extreme Technology

Precision automated manufacturing to enhance reliability

\*The ROG Strix GeForce® RTX 2070 features Patented Wing-Blade Fans.  
\*\*The ROG Strix GeForce® RTX 2070 is a 2.5-slot card.



## TURBO

Cutting-Edge Shroud  
Improves cooling for multi-card configurations and chassis with limited airflow

Dual-ball Bearing Fan with IP5X Dust Resistance

A larger, quieter, dust resistant fan that shifts more air

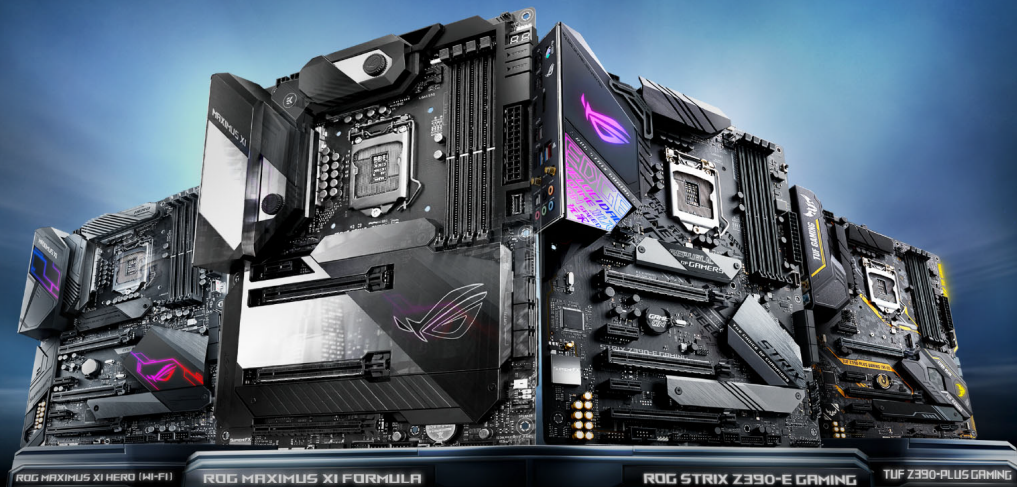
### 144-Hour Validation Program

Extensive stability testing with chart-topping game titles and heavy workloads



NO. 1 GAMING BRAND WORLDWIDE

## ASUS Product Guide Motherboard & Graphics Card



# Z390 SERIES



## AI OVERCLOCKING WITH CPU AND COOLER AWARENESS

### TUNE IT YOUR WILL

AI Overclocking &  
ASUS OptiMem II

### COOLER BY DESIGN

M.2 cooling solution &  
Fan Xpert 4 with  
GPU-temp. sensing

### MAKE IT YOUR OWN

ASUS Aura Sync &  
LiveDash OLED

THE BEST MOTHERBOARD BRAND - BEST-SELLING, EASY TO USE, STABLE, TRUSTED



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**ASUS**



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BEST SELLING AND MOST AWARD WINNING**



Podium Gold  
Rampage V Extreme  
Edition 10



OCDrift Gold  
ROG MAXIMUS VIII  
FORMULA



TECH CRITTER GOLD  
Maximus IX Hero



CHIP Editors' Choice Award  
MATRIX-6TX800T-P-  
66DS-GAMING



PC Gamers Gold Choice Award  
E3 PRO GAMING V5



TECH CRITTER GOLD  
EXPEDITION  
GTX 1050 Ti

How it works :



**PURCHASE**

Purchase any  
ASUS Motherboard or  
ASUS Graphics Card



**REGISTER**

Login to <http://woobox.com/7up5z2>,  
complete the registration form and  
click submit



**EXTEND**

You will receive a confirmation via  
SMS or Email on the extended  
warranty status within 14 days

\* Terms & Conditions Apply

**WORLD'S NO.1**  
MOTHERBOARD BRAND FOR OVER 10 YEARS



**ASUS Motherboards - The World's Most Award-Winning brand**



CHIP Editors' Choice Award  
ROG MAXIMUS VIII FORMULA  
E3 PRO GAMING V5  
STRIX X99 Gaming  
X99-Deluxe II



OCDrift Gold  
ROG MAXIMUS VIII FORMULA  
Rampage V Extreme Edition 10



GOLDFRIES.COM  
X99-PRO  
B150I PRO GAMING/WIFI/AURA



PC.Com Gold Choice Award  
E3 PRO GAMING V5  
B150 Pro Gaming D3



Podium Gold  
Rampage V Extreme Edition 10



TECH CRITTER GOLD  
ROG MAXIMUS VIII FORMULA



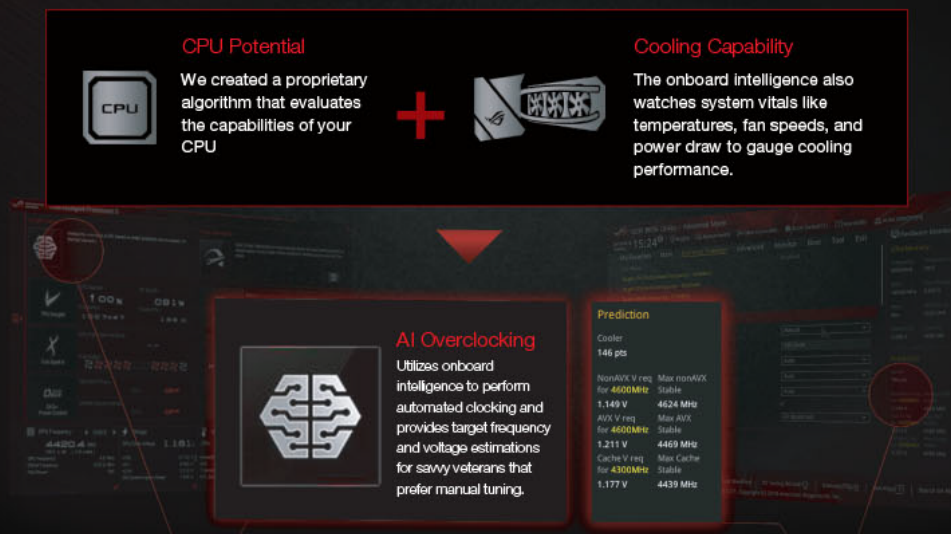
**MOST AWARD WINNING PC GAMING BRAND**  
HWM+HardwareZone.com



# AI OVERCLOCKING

## OVERCLOCKING INTELLIGENCE

ASUS AI Overclocking makes automatic tuning faster and smarter than ever before. Available in Windows or directly through the UEFI, it profiles the CPU and cooling to predict the optimal configuration for each individual system.



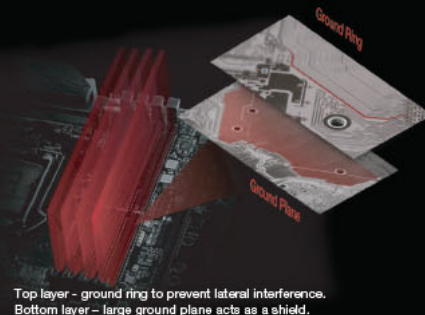
## OptiMem II: DRAM OC to 4266MHz with all DIMMs filled

To provide Intel's latest processors' unfettered access to memory bandwidth, we've reimagined motherboard trace routing from the ground up. Our OptiMem II tech carefully maps memory signal pathways across different PCB layers to reduce vias and also adds shielding zones that significantly reduce crosstalk. And to further enhance overclocking headroom for fully stacked memory configurations, we've employed a highly customized T-Topology layout that delivers time-aligned signaling.

69% Reduction in crosstalk

ASUS OptiMem II P2P : 14.8m

Reference Design P2P : 48.6m



# TOTAL COOLING

## COOLER BY DESIGN

### Fan Xpert 4 with GPU-temperature sensing

To optimize cooling for GPU-intensive tasks, ASUS motherboards can adjust system fan speeds based on the temperature of select ASUS graphics cards.



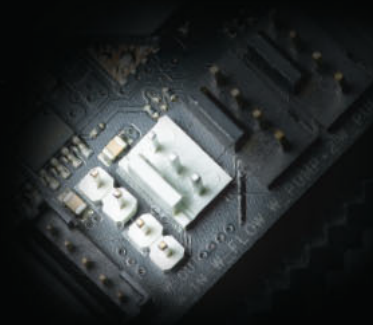
### M.2 Cooling Solutions

ASUS motherboards are loaded with M.2 cooling innovations that prevent throttling, including temperature-reducing heatsinks and the vertically-mounted DIMM.2 module to maximize allow.

M.2 heatsink *On selected models	Dimm.2 with heatsink *On ROG Maximus XI Extreme/ Gene	Double-Decker heatsink *On ROG Strix Z390-I Gaming
A ROG DIMM.2 HEATSINK B ROG DIMM.2 DUAL M.2 EXPANSION CARD	A M.2 HEATSINK B M.2 2242-2280 C PCH HEATSINK D PCH CHIP	

### ROG Water cooling zone

ROG Maximus XI series motherboards provide extensive water-cooling support with water in/out temperature headers for thermal probes, and a flow-rate header compatible with Bitspower meters. In AI Suite, header data can be referenced to control system fans or viewed to check loop performance.





# MAKE IT YOUR OWN

## ASUS AURA SYNC



ASUS Z390 motherboards feature tactfully placed onboard RGB lighting zones, plus support for 5050 strips and addressable gear. And it can all be controlled with our Aura software, which grants access to a myriad of colors and effects, and even allows you to synchronize lighting with a vast portfolio of Aura Sync compatible hardware and includes support for Philips Hue.



Learn more about ASUS Aura Sync

<https://www.asus.com/campaign/aura/global/index.html>



## LiveDash OLED

The LiveDash OLED displays real-time system stats, images and animations, combining functionality with aesthetics and adding more customization options for builders.



## ROG MAXIMUS

The ROG Maximus XI series pushes gaming and overclocking forward with boards carefully tailored for different kinds of builds, from a liquid-cooled masterpiece to a microATX monster.

While the ROG Maximus series covers the high end of the spectrum, the ROG Strix family opens the Republic of Gamers to a wider audience. Must-have features permeate the lineup, which extends from full-sized ATX boards down to smaller Mini-ITX models. In addition to selecting from multiple form factors, you can also opt for different color schemes.



### EXTREME EATX

The flagship model for peak performance, water cooling, and showcase builds.

### FORMULA ATX

Formulated for premium gaming, modders, and show case builds



### GENE MATX

Engineered for overclocking addicts and SFF builders



### CODE ATX

Elevated aesthetics and performance for gamers and enthusiasts



### HERO ATX

ROG feature made accessible for PC enthusiast and gamers





# ROG GAMING AUDIO

GIVING YOU A NEW SENSE TO PERCEIVE THE LANDSCAPE

## SupremeFX

Utilizing advanced trace layout techniques to mitigate noise, carefully selected components, and a host of software options that enhance the gaming experience, SupremeFX pushes the sound quality of onboard audio to the very limits.



### Sonic Studio III

Explore a range of EQ options and one-click presets that allow you to tailor acoustics to suit personal preferences or the characteristics of your audio devices, and make use of to USB, the new APO-injection technology apply your audio profiles HDMI and Bluetooth gears.

Sonic Radar



### Sonic Radar III

Enjoy visualized audio detail that eliminates the need to crank up the volume. It's the perfect tool for practice rounds and tuning untrained ears.

3D-Pointer Arrow  
Audio Boost

## GameFirst V

GameFirst V is the ROG-exclusive tool that optimizes network traffic for faster, lag-free online gaming. We made some major upgrades that elevate its ability to control network performance while you game:



### ROG First

Interfaces directly with an ROG router and automatically configures QoS to prioritize network bandwidth to games.

### Extreme mode

Pass network packets for specific applications, helping to reduce latency.

### Status overlay

View or adjust network settings during your game, without interrupting play.

## TEAM WITH ROG ROUTERS FOR MORE WINS

Packet prioritization from your PC to the Server



+



ROG MOTHERBOARD  
\*With GameFirst

ROG Wi-Fi ROUTER  
\*With GameBoost

**33% faster**  
than key competitor



\*Tested with League of Legends, with BitTorrent download and streaming also running.

# ROG

## MAXIMUS XI SERIES

The Maximus XI series embraces

the dark side with blacked-out boards in multiple sizes and variations. Each model sports a unique blend of features to cater to a distinct audience, yet the core ROG DNA ripples through the entire lineup. From overclocking and cooling options to satiate die-hard fanatics, to clean, refined aesthetics that are tastefully accented by RGB lighting, Maximus series motherboards bring the octane to your build.



AI OVERCLOCKING  
Intelligently overclocks a CPU based on smart prediction and evaluation of thermal telemetry

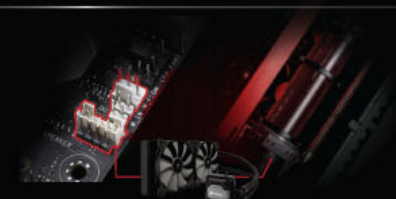
## AI Overclocking

Utilizes onboard Intelligence to perform automated clocking and provides target frequency and voltage estimations for savvy veterans that prefer manual tuning.

## Optimal Cooling

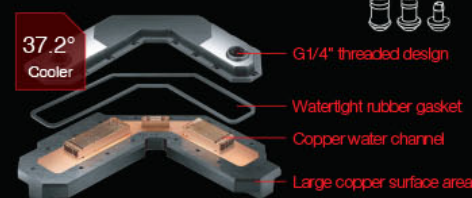
### Cooler By Design

Extensive overclocking options for novices and advanced users pair with cooling controls for AIOs and liquid loops to keep your high-performance rig perfectly chilled.



### CROSSCHILL EK II

\*ROG Maximus XI Formula Exclusive



### ROG DIMM.2 Heatsink

\*ROG Maximus XI Extreme Exclusive





## Thrilling Performance



### DDR4 4400MHz+ with OptiMem II

Integrated OptiMem II technology carefully maps memory signal pathways across PCB layers to reduce vias, and it also adds shielding zones that significantly reduce crosstalk. To further enhance overclocking headroom for fully stacked memory configurations, a highly customized T-Topology layout delivers time-aligned signaling.

### Built For Overclocking

ROG Maximus XI series features a dedicated onboard clock generator that supplies dynamic reference clocks to the CPU cores and major subdomains, giving you the freedom to coax every MHz of headroom from the system.

## Control Your Rig

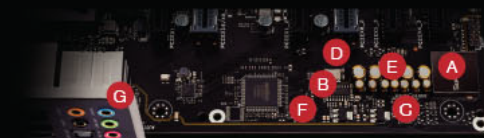
### 5-Way Optimization

- Automated Overclocking
- Fan Calibration
- Energy-Efficiency
- Digital Power Delivery
- Custom Application Settings



### ROG Gaming Audio

SupremeFX audio technology delivers an exceptional 113dB signal-to-noise ratio on the line-in. Plus, Sonic Studio III's all-new routing feature port streams to different outputs to give you full control over who hears what.



- A SupremeFX S1220 Codec
- B ESS® ES9023P
- C RC4580 Headphone AMP
- D High-Precision Clock source
- E Nichicon Capacitors
- F Switching MOSFETs
- G Gold-Plated Audio Jacks

## Personalized For You

### RGB LIGHTING PERFECTED

Onboard 5050 RGB headers and an addressable header for easy connection to compatible lighting strips, fans, coolers, and PC cases.

\*Please note number of headers varies by model



**LIVEDASH OLED**  
A built-in OLED panel that displays useful information and customizable graphics

\* ROG Maximus XI Formula & Extreme Exclusive

# ROG MAXIMUS XI GENE

The long wait for the ultimate small form factor motherboard is over. With Maximus XI Gene, we completely rethought our approach to mATX and created a board with support for extreme overclocking, double-capacity DIMMs and next-generation storage that delivers revolutionary performance rivaling high-end ATX systems. — Maximus XI Gene is crafted to be a natural fit for showcase PC builds for gaming and style-conscious enthusiasts where pure adrenaline meets pure style through the best performance.

## World records smashed

With its optimized layout, high-quality components, and ability to withstand the rigors of sub-zero operation with liquid-nitrogen (LN2) and helium (LHe), Maximus XI Gene has already smashed 10 world records and scored 11 global first-places in the 8-core CPU category.

**5566 MHz**  
World record DDR4 memory frequency

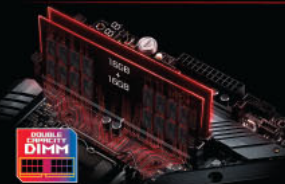
**7.6 GHz**  
ALL CORE CPU frequency

**10** World records  
**11** Global first places



\* World record and global first-place positions verified on 19th October 2018, by HWBOT.org.

## Revolutionary Design



### Double capacity DIMM support

Optimized memory trace layout for dual 32GB DIMM support.

Traditional 2-DIMM motherboard  
up to 32GB  
(16GB per slot)

Maximus XI Gene with double capacity DIMM  
up to 64GB  
(32GB per slot)



### ROG DIMM.2

Vertically-installed dual-M.2 expansion card with heatsink for maximum cooling and performance.

\* DIMM.2 accommodates M.2 drives up to 22110 (110mm) in length.

### OPTIMEM II

Careful trace routing and ground-layer optimizations preserve signal integrity for enhanced memory stability and overclocking headroom.

**69%**  
Reduction  
in crosstalk

OptiMem II  
P2P : 14.8m  
Reference Design  
P2P : 48.6m



# ROG STRIX

## Z390 GAMING SERIES

ROG Strix Z390 Gaming motherboards are made for gamers who demand a system that looks as good as it performs. Whether you're building with ATX or Mini-ITX, Strix Z390 Series combines ROG essentials with stylish aesthetics — so your rig will be outstanding in every aspect.



### Aesthetic



### Cyber Outlook

An illuminated ROG logo with a natural diffuse glow and onboard I/O shroud lighting with a futuristic cyber-text pattern gives ROG Strix Z390-E and ROG Strix Z390-F Gaming unique and arresting designs that communicate their gaming identities. The cyber outlook extends to the PCB with subtle textures that contribute a premium look and feel to ROG Strix Gaming motherboards.

### Aura Sync

ROG Strix 300 Gaming series motherboards feature onboard RGB headers or an addressable RGB header that can be connected to different devices create a new world of illumination possibilities.



### DIY Friendly Design

DIY-friendly designs simplify the ROG Strix 300 Gaming PC-building experience. A pre-mounted I/O shield eases installation, while our extensive compatibility testing provides reassurance when choosing component parts. We've also built in all-around protection for both you and your rig.



MemOK II



DIGI+ VRM



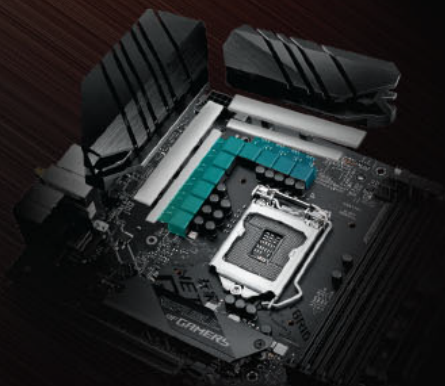
HIGHLY DURABLE COMPONENTS



SAFESLOT



## Performance



### DrMOS

The ROG Strix Gaming series's CPU VRM utilizes DrMOS power stages that combine high-side and low-side MOSFETs and drivers into a single package, delivering the power and efficiency that Intel's latest processors demand.

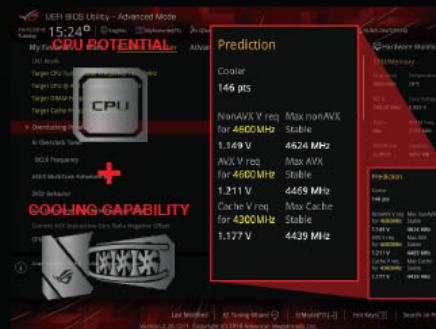
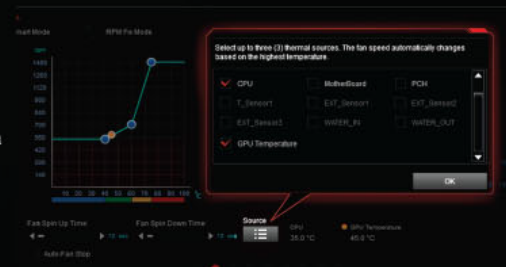
\*DrMOS is available on the ROG Strix Z390-E, F and I motherboards.

### Thermal Solution

The Strix Z390 Gaming Series uses high-quality thermal pads to help transfer heat from the inductor and phase array to a heatsink that has ample surface area to deal with the power demands of all Coffee Lake processors.

### Cooler by Design

ROG Strix Z390 Gaming motherboards offer comprehensive control over fans, water pump and even all-in-one coolers, via Fan Xpert 4 or our acclaimed UEFI. Auto-Tuning mode configures air or water cooling with a single click, while Extreme Quiet mode lowers fan speeds to below the default minimum — for whisper-quiet light workloads.

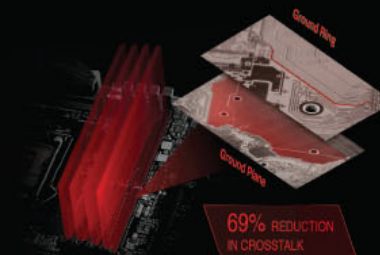


### AI Overclocking

The overclocking module of AI Suite's 5-Way Optimization has been revamped for the Z390 platform. With a revised back-end that has the intelligence to overclock a CPU based upon smart prediction and thermal telemetry, this new version quickly delivers overclocking results that would typically take days of manual tuning.

### OptiMem II

To provide Intel's latest CPUs unfettered access to memory bandwidth, motherboard trace routing has been reimagined with the new ROG and ROG Strix motherboards. Integrated OptiMem II technology carefully maps memory signal pathways across PCB layers to reduce vias, and it also adds shielding zones that significantly reduce crosstalk. To further enhance overclocking headroom for fully stacked memory configurations, a highly customized T-Topology layout delivers time-aligned signaling.





## Intel Internet Solution

### Intel Gigabit Ethernet

ROG Strix Gaming series features Intel Ethernet (I219-V), ensuring data exchanges with your network and the outside world are fast and smooth.

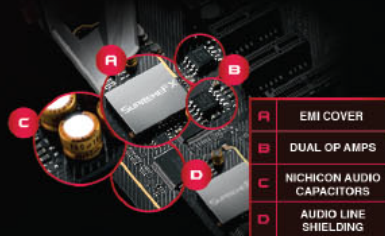
### Intel Wi-Fi

ROG Strix Z390-E and I Gaming feature Intel 802.11ac Wi-Fi with 2x2 MU-MIMO and wide 160MHz channels, for wireless speeds of up to 1.73Gbps.

## Immersive Gaming Audio

### SupremeFX

SupremeFX audio technology has levelled up, delivering flawless gaming audio with exceptional 113dB line-in and 120dB line-out signal-to-noise ratio.



### Sonic Studio Link

The new Sonic Studio Link now allows you to apply Sonic Studio effects on all playback devices. Simply press the Sonic Studio Link button to enjoy the effect on any playback devices.



## Mini-ITX Innovation

### Integrated I/O shield and VRM heatsink

An integrated I/O shield and VRM heatsink utilize almost one third of the Strix Z390-I mini-ITX board to deliver a uniquely effective cooling system. This industry-first layout employs transfers heat from the CPU power supply to the heatsink, helping to keep temperatures under control even in cramped mini-ITX chassis.

### Double-Decker Heatsink

An innovative heatsink design minimizes M.2 SSD throttling by cleverly utilizing space to thermally isolate the PCH heatsink and M.2 heatsink for up to 20°C cooler SSD temperature.



### Double-Capacity DIMM Support

ROG Strix Z390-I Gaming features a unique memory-trace design that supports up to 32GB per slot for a total memory capacity of 64GB. With double-capacity UDIMM modules, ROG Strix Z390-I Gaming delivers four-DIMM memory capacity in a compact, dual-DIMM design.

## TUF GAMING Z390 SERIES

TUF Gaming Z390 motherboards distill core features of the legendary TUF series to an affordable price for gamers that prioritize durability and ease-of-use above all else. The TUF foundation is laid by utilizing military-spec components to deliver stable power to critical areas. And the engineering focus extends to trace pathways that are optimized for enhanced compatibility, making it easy to pick the right memory kit for your build.

When you build with a TUF Gaming motherboard, you also benefit from the TUF Gaming Alliance — an ASUS collaboration with trusted industry partners that ensures easier building, the best compatibility, and complementary aesthetics from components to case.

The unrivalled combination of military-grade TUF Components, TUF Protection and the TUF Gaming Alliance means that you can rest assured that your gaming rig will go the distance.



## Reliability & Stability

Built for virtual battleground, TUF Gaming motherboards are engineered to be as dependable as they appear. To ensure long-term durability and stability, TUF Gaming motherboards are infused with core TUF features—TUF Protection and military-grade TUF Components.

### TUF Protection & TUF Components

**1.6X Stronger Retention Force**

**SafeSlot**  
Protect your graphics card investment.

**1.8X Stronger Shearing Test**

**TUF LANGuard**  
Best surge protection.

**2.5X Higher Surge Tolerance**

**TUF MOS**

**TUF CAP**

**TUF CHOKES**



## Built for Hard Duty

### Optimized Thermal Design

ASUS TUF GAMING Z390 motherboards' VRM and Inductor array is coupled to a large heatsink that has ample surface area to deal with the thermals of Intel's latest processors.



### Enhanced EATX 8-Pin Socket

- Solid and more durable
- Prevent hotspots and connector failure

## Game Your Way



### TUF Gaming Audio Cover

Effective shielding preserves the integrity of audio signals to ensure best quality.

### Audio Enjoyment

Premium Japanese audio capacitors provide warm, natural, and Immersive sound.

### Exclusive S1200A Codec

Delivers an expansive soundstage and authoritative dynamics.

### Audio Shielding

Separates analog/digital signal domains, significantly reducing multi-lateral interference.

### Realtek S1200A Codec for Pristine, Powerful Audio

ASUS TUF GAMING Z390 motherboards utilize a unique audio codec designed in close collaboration with Realtek — the Realtek S1200A. It also features an unprecedented 108dB signal-to-noise ratio for the stereo line-out and a 103dB SNR for the line-in, providing pristine audio quality.



### Thermal Pad for Inductors & VRM

Balanced thermal dissipation

### ProCool Socket

Compared with traditional power inputs, ProCool sockets are built to tight specifications to ensure flush contact with the PSU power lines. This lowers Impedance, which helps to prevent hotspots and connector failure.



### Signal-to-noise Ratio



## WS SERIES

### WS Z390 PRO

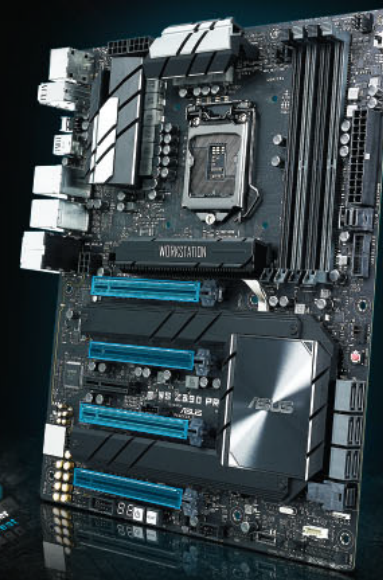
Designed for compute-intensive workloads, WS Z390 PRO blends tremendous GPU performance, comprehensive tuning options, and robust connectivity for prosumers and content creators.

### Four PCIe 3.0 x16 slots enable extreme graphics

WS Z390 PRO fits up to four dual-slot graphics cards and supports both NVIDIA® SLI™ and AMD CrossFireX™ for multi-GPU setups that harness the full power of the latest graphics technologies, delivering the best performance for design, modelling, medical research and processing-intensive simulation and rendering applications.

### ASUS SafeSlot

A reinvented PCIe slot by manufactured in a single step using a new Insert-molding process, SafeSlot integrates the slot with fortifying metal for an inherently stronger slot, which is then firmly anchored to the PCB through additional solder points.



### 5-way Optimization with AI Overclocking

Take care of complex tuning with just one click. ASUS 5-Way Optimization is a system-wide tuning utility that overclocks the processor and tunes fan speeds to ensure the best balance between cooling and acoustics. The automated CPU tuning feature of 5-Way Optimization leverages the same onboard intelligence as AI Overclocking, but goes further by running a Prime95 based stress test to deliver a result that's well-tuned from the get-go.

## Connect with unparalleled speeds

Super-Fast Transfers at up to 32Gbps with Onboard Dual M.2 and Dual U.2	10Gbps USB 3.1 Gen 2 Onboard	ThunderboltEX 3 for Blistering Speeds and USB-C Connectivity
With onboard dual M.2 and dual U.2 supporting PCIe 3.0 x4 bandwidth, WS Z390 PRO is built to fit both 2.5-inch NVMe Express® SSDs and M.2 devices, exploiting maximum transfer speed up to 32Gbps.	With backward-compatible USB 3.1 Gen 2 Type-A and reversible Type-C ports, you'll experience ultimate connection flexibility and data-transfer speeds of up to 10Gbps — twice as fast as USB 3.1 Gen 1.	Supports ASUS ThunderboltEX 3 for bi-directional Thunderbolt™ 3 transfer speeds of up to 40Gbps, 4X USB speeds and 2X video bandwidth, as well as reversible USB 3.1 Gen 2 Type-C compatibility.



# PRIME Z390 SERIES

Dressed in professional attire, the Prime Z390 series caters to daily users and content creators with well-rounded specs and features. Combining the benefits of the latest processors with essential ASUS design and engineering, Prime Z390 provides a wealth of options for performance tuning via intuitive software and firmware features.



## AI Overclocking



AI Overclocking makes automatic tuning faster and smarter than ever before. Available in Windows or directly through the UEFI, it profiles the CPU and cooling to predict the optimal configuration for each individual system. We created a proprietary algorithm that rates the quality of the silicon to see where your chip lands on the spectrum. The onboard Intelligence also watches system vitals like temperatures, fan speeds, and power draw to evaluate cooling performance. Dedicated hardware makes the monitoring seamless, and you can allow continuous training that adapts to upgrades, dust buildup over time, and seasonal changes in ambient temperature.

## DDR4 Overclocking to 4266+MHz

Prime Z390-A features OptiMem II, which reimagines memory traces from the ground up—literally. OptiMem II adds a dedicated ground plane and surrounding ground trace with via stitching to reduce interference for the traces connecting the CPU and memory slots. It also routes traces through different PCB layers to cut down on crosstalk. These changes combine with our T-Topology trace layout to enable DDR4 speeds in excess of 4266MHz with all slots populated, even if you're using RGB-infused RAM.

ASUS OptiMem II

P2P : 14.8m

Reference Design

P2P : 48.6m

69%

Reduction in crosstalk

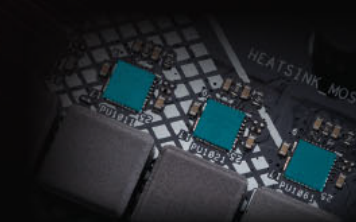
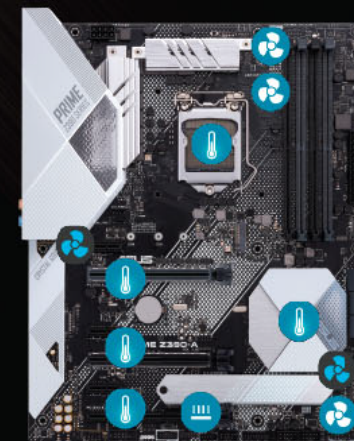
Tested by using Synopsys HSPICE simulation software

## Cooler by Design

Flexible cooling controls with GPU-temperature sensing

Prime Z390-A features the most comprehensive fan controls ever, configurable via Fan Xpert 4 and UEFI BIOS – with the ability to sense GPU temperatures for cooler gaming.

- Multiple temperature sources
- AIO pump and Water pump+
- 4-pin PWM/DC fan
- Fan Extension card header



### DrMOS

The Prime Z390-A's CPU VRM utilizes DrMOS power stages that combine high-side and low-side MOSFETs and drivers into a single package, delivering the power and efficiency that Intel's latest processors demand.

### M.2 heatsink

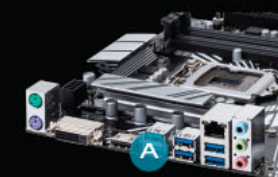
Prime Z390-A has an ultra-efficient heatsink to reduce M.2 SSD temperatures by up to 20°C – and that means optimal storage performance and improved SSD longevity.

## Ultrafast Connectivity

Prime Z390-A

Prime Z390-P






Prime Z390M-PLUS









A	USB 3.1 Gen2 Type-A & Type-C
B	Intel Ethernet



SPEC TABLE






						
Model Name		ROG MAXIMUS XI FORMULA	ROG MAXIMUS XI HERO (WI-FI)	ROG STRIX Z390-E GAMING	TUF Z390-PLUS GAMING (WI-FI)	ROG MAXIMUS XI GENE
CPU		Socket 1151 for 9th / 8th Gen Intel® Core™, Pentium® Gold and Celeron® processors				
Chipset		Intel Z390 Chipset				
Form Factor		ATX	ATX	ATX	ATX	mATX
Memory	Memory Slots / Maximum	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	2 x DIMM, Max. 64GB, DDR4
	Memory Frequency (MHz)	4400 MHz(O.C.)	4400 MHz(O.C.)	4266 MHz(O.C.)	4266 MHz(O.C.)	4800 MHz(O.C.)
Graphics Output		HDMI	DP / HDMI	DP / HDMI	DP / HDMI	HDMI
Multi-GPU Support		2-Way SLI/3-Way CFX	2-Way SLI/3-Way CFX	2-Way SLI/3-Way CFX	2-Way CFX	N / A
Graphics (Expansion) Slot	PCIe 3.0	2 x PCIe 3.0 x16 (x16, x8/x4, or x8/x4+x4) 1 x PCIe 3.0 x16 (max at x4 mode) 1 x PCIe 3.0 x16	2 x PCIe 3.0 x16 (x16 or dual x8) 1 x PCIe 3.0 x16 (x4 mode) 3 x PCIe 3.0 x1	2 x PCIe 3.0/2.0 x16 (x16 or dual x8) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 3 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 or x8/x4+x4) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 4 x PCIe 3.0/2.0 x1	1 x PCIe 3.0 x16 1 x PCIe 3.0 x4
	SATA 6Gb/s	6	6	6	6	4
Storage & Connectivity	32Gb/s M.2	1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x4 mode) 1 x M.2 Socket 3, 2242/2260/2280 storage (PCIe 3.0 x4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (both SATA & PCIe mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x4 mode)	2 x ROG DIMM 2 Module support(CPU, DIMM 2), 2242/2260/2280/22110 (PCIe 3.0 x4 mode) 2 x M.2 Socket 3, 2242/2260/2280(x4 PCIe mode)
	USB 3.1 Gen 2 Front Panel Connector	1	1	1	0	1
	USB 3.1 Gen 2	1 x Type-C 3 x Type-A	1 x Type-C 3 x Type-A	1 x Type-C 3 x Type-A	2 x Type-A	1 x Type-C 3 x Type-A
	USB 3.1 Gen 1	10	4	4	8	8
	Gigabit Ethernet	Intel i219-V® Aquantia AQC111C 5G LAN	Intel® i219-V	Intel® i219-V	Intel® i219-V	Intel® i219-V
Networking	LANGuard	V	V	V	V	V
	Wireless	Intel® Wireless-AC 9560 2x2 MU-MIMO 802.11ac	Intel® Wireless-AC 9560 2x2 MU-MIMO 802.11ac	Intel® Wireless-AC 9560 2x2 MU-MIMO 802.11ac	Intel® Wireless-AC 9560 2x2 MU-MIMO 802.11ac	Intel® Wireless-AC 9560 2x2 MU-MIMO 802.11ac
	Bluetooth	v5.0	v5.0	v5.0	v5.0	v5.0
	Software	GameFirst V	GameFirst V	GameFirst V	Turbo LAN	GameFirst V
Audio	Codec	SupremeFX S1220	SupremeFX S1220	SupremeFX S1220A	Realtek® S1200A	SupremeFX S1220
	Effects	Sonic Studio III Sonic Radar III Sonic Studio Link	Sonic Studio III Sonic Radar III Sonic Studio Link	Sonic Studio III Sonic Radar III Sonic Studio Link	DTS Custom	Sonic Studio III Sonic Radar III Sonic Studio Link
	AI OC tuning	V	V	V	N / A	V
Special Features	5-way Optimization	V	V	V	N / A	V
	Fan Xpert	Fan Xpert 4	Fan Xpert 4	Fan Xpert 4	Fan Xpert 4	Fan Xpert 4
	Water Block	CrossChill EK III	N / A	N / A	N / A	N / A
	Water Cooling Headers	Water In/Out T-sensor, Flow Water Pump, AIO Pump	Water In/Out T-sensor, Flow Water Pump, AIO Pump	Water Pump, AIO Pump	AIO Pump	Water In/Out T-sensor, Flow Water Pump, AIO Pump
	DIMM.2 Heatsink	N / A	N / A	N / A	N / A	V
	M.2 Cooling Solution	V	V	V	V	V
	SafeSlot	V	V	V	V	V
	5x Protection III / Gamer's Guardian / TUF Protection	V	V	V	V	V
	LiveDash OLED	V	N / A	N / A	N / A	N / A
	Aura Sync LED Lighting	V	V	V	V	V
	4-pin RGB Header	2	2	2	2	2
	Addressable RGB header	2	2	1	N / A	0
	Thunderbolt header	N / A	N / A	N / A	N / A	N / A


							
Model Name		TUF Z370-PLUS GAMING II	ROG MAXIMUS X HERO	ROG STRIX Z370F GAMING	ROG STRIX Z370F GAMING	TUF Z370-PLUS GAMING	PRIME Z370-P
CPU		Intel® Socket 1151 for 8th Generation Core™ Processors					
Chipset		Intel® Z370					
Form Factor		ATX	ATX	ATX	ATX	ATX	ATX
Memory	Memory Slots / Maximum	4 x DIMM max. 64GB, DDR4	4 x DIMM max. 64GB, DDR4	4 x DIMM max. 64GB, DDR4	4 x DIMM max. 64GB, DDR4	4 x DIMM max. 64GB, DDR4	4 x DIMM max. 64GB, DDR4
	Memory Frequency (MHz)	4000 MHz (O.C.)	4133 MHz (O.C.)	4000 MHz (O.C.)	4000 MHz (O.C.)	4000 MHz (O.C.)	4000 MHz (O.C.)
Graphics Output		HDMI, DVI-D	DP, HDMI	DP, HDMI, DVI-D	HDMI, DVI-D	HDMI, DVI-D	HDMI, DVI-D
Multi-GPU Support		AMD CrossFireX	2-Way SLI/3-Way CFX	2-Way SLI/3-Way CFX	2-Way SLI/3-Way CFX	AMD CrossFireX	AMD CrossFireX
Graphics (Expansion) Slot	PCIe	1 x PCIe 3.0/2.0 x16 (x16, x8/x4+x4) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 4 x PCIe 3.0/2.0 x1	2 x PCIe 3.0 x16 (x16 or dual x8) 1 x PCIe 3.0 x16 (x4 mode) 3 x PCIe 3.0/2.0 x1	2 x PCIe 3.0/2.0 x16 (x16 or dual x8) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 4 x PCIe 3.0/2.0 x1	2 x PCIe 3.0/2.0 x16 (x16 or dual x8) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 3 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 (x16, x8/x4+x4) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 4 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 (x16, x8/x4+x4) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 4 x PCIe 3.0/2.0 x1
	SATA 6Gb/s	6	6	6	6	6	4
Storage & Connectivity	32Gb/s M.2	1 x M.2 Socket 3, 2242/2260/2280 (SATA & X4 PCIe mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x4 mode)	1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (PCIe 3.0 x4 mode)	2 x M.2 Socket 3, 2242/2260/2280 (SATA mode & X4 PCIe mode)	2 x M.2 Socket 3, 2242/2260/2280 (SATA mode & X4 PCIe mode)
	USB 3.1 Front Panel Connector	V	V	N / A	N / A	V	N / A
	USB 3.1	2 x Type-A	1 x Type-C 1 x Type-A	1 x Type-C 1 x Type-A	2 x Type-A	2 x Type-A	N/A
	USB 3.0	6	6	6	8	6	8
	Gigabit Ethernet	Intel® i219V	Intel® i219V	Intel® i219V	Intel® i219V	Intel® i219V	Realtek 8111H
Networking	LANGuard	V	V	V	V	V	V
	Wireless	N / A	N / A	N / A	N / A	N / A	N / A
	Software	Turbo LAN	GameFirst IV	GameFirst IV	GameFirst IV	Turbo LAN	N/A
	Codec	Realtek ALC887	SupremeFX S1220A	SupremeFX S1220A	SupremeFX S1220A	Realtek ALC887	Realtek ALC887
Audio	Effects	Exclusive DTS Custom for gaming headsets	Sonic Studio III Sonic Radar III	Sonic Studio III Sonic Radar III	Sonic Studio III Sonic Radar III	Exclusive DTS Custom for gaming headsets	N/A
	Aura Sync LED lighting	V	V	V	N / A	V	N/A
	4-pin RGB Header	2	2	2	N / A	1	N/A
Special Features	Dedicated 3D Mount	N / A	V	V	N / A	N / A	N/A
	Fan Xpert	V	V	V	V	V	V
	Water Block	N / A	N/A	N/A	N/A	N / A	N / A
	Water Cooling Headers	AIO Pump	Water In/ Out Sensor, Flow AIO Pump, Water Pump	AIO Pump	AIO Pump	Water Pump AIO Pump	AIO Pump
	M.2 Heatsink	V	V	V	N/A	V	N/A
	5x Protection III / Gamer's Guardian / TUF Protection	V	V	V	V	V	V
	SafeSlot	V	V	V	V	V	N / A
	Thunderbolt header	N / A	N / A	N / A	N / A	N / A	N / A

\*Double Capacity DRAM support depends on the DRAM types



# SPEC TABLE

						
Model Name		ROG RAMPAGE VI EXTREME	ROG STRIX X299-XE GAMING	ROG STRIX H370-F GAMING	TUF H370-PRO GAMING	PRIME H370-PLUS
CPU		Intel® Socket 2066 for Intel™ X-Series Processor 79xx, 78xx Series	Intel® Socket 2066 for Intel™ X-Series Processor 79xx, 78xx, 77xx, and 76xx Series	Intel® Socket 1151 for 8th Generation Core™ Processors		
Chipset		Intel X299 Chipset		Intel H370 Chipset		
Socket		LGA 2066	LGA 2066	LGA1151	LGA1151	LGA1151
Form Factor		EATX	ATX	ATX	ATX	ATX
ASUS Xtreme Phase		8-Phase Digital	8+2+2 Phase Digital	DIGI + VRM	4+1 Phase Digital	6 Phase Digital
Memory	Memory Slots / Maximum	8 x DIMM, Max. 128GB, DDR4	8 x DIMM, Max. 128GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4
	Memory Frequency (MHz)	4200 MHz (O.C.)	4133 MHz (O.C.)	2666 MHz (O.C.)	2666 MHz (O.C.)	2666 MHz (O.C.)
Onboard VGA Output		N / A	N / A	1 x D-sub + 1 HDMI +1 DP	1 x D-sub + 1 HDMI +1 DP	1 x D-Sub + 1 x DVI + 1 x HDMI
Graphics (Expansion) Slot		4 x PCIe 3.0 x16 (x16, x16/x16, x16/x8/x8 or x16/x8/x8/x8 mode with 44-LANE CPU, x16, x16/x8 or x8/x8 mode with 28-LANE CPU) 1 x PCIe 3.0 x4	3 x PCIe 3.0/2.0 x16 (x16, x16/x16, x16/x8) 2 x PCIe 3.0 x4 (max at x4 mode) 1 x PCIe 3.0/2.0 x1 (x16 mode) 2 x PCIe 3.0 x4 (max at x4 mode) 1 x PCIe 3.0/2.0 x1 (x16 mode) 3 x PCIe 3.0/2.0 x16 (x16, x8/x8, x8/x8/x1) 2 x PCIe 3.0 x4 (max at x4 mode) 1 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 mode) 1 x PCIe 3.0/2.0 x16 (x4 mode) 4 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 slot + 1 x PCIe 3.0/2.0 x16 slot (max. at x2 mode) +1 x PCIe 3.0/2.0 x16 slot (max. at x4 mode)	1 x PCIe 3.0/2.0 x16 (x16 mode) 1 x PCIe 3.0/2.0 x16 (max at x4 mode) 2 x PCIe 3.0/2.0 x1
Multi-VGA		4-way SLI + CrossFireX@x16/x8/x8 or x8/x8(44-LANE CPU) 3-Way SLI+CrossFireX @ x8/x8/x8(28-LANE CPU)	3-Way SLI+ CrossFireX@x16/x8/x8(44-LANE CPU) 2-Way SLI/CrossFireX @x8/x8 (28-LANE and 16-LANE CPU)	CrossFire@ x16 /x4	CrossFire@ x16 /x4	CrossFireX@x16/x4
SATA		SATA 6Gb/s x 8 (RAID 0,1,5,10)	SATA 6Gb/s x 8 (RAID 0,1,5,10)	SATA 6Gb/s x 8 (RAID 0,1,5,10)	SATA 6Gb/s x 8 (RAID 0,1,5,10)	SATA 6Gb/s x 6 (RAID 0, 1, 10)
M.2		1 x ROG DIMM.2 Module support(CPU, DIMM.2), M.2 x4 2280/2242/2260/2280/22110 1 x ROG DIMM.2 M.2 x4 2280/2242/2260/2280/22110 1 x U.2 port, support PCIe 3.0 x4 NVMe Express storage 1 x M.2 Socket 3, with M key, type 2242/2260/2280 (both SATA & PCIe mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode) 1 x M.2 Socket 3, 2242/2260/2280 (PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x 4 mode)	1 x M.2_1 Socket 3 with M Key, type 2242/2260/2280 storage devices support (both SATA & PCIe x2 mode)* + x M.2_2 Socket 3 with M Key, type 2242/2260/2280/22110 storage devices support (PCIe x4 mode)
LAN		Intel® I219V	Gb Intel PHY	Gb Intel	Gb Intel	Gb Realtek PCIe
WiFi		WiFi 802.11 a/b/g/n/ach- WiGig 802.11ad Dual band frequency 2.4/5 GHz MU-MIMO Up to 4600Mbps transfer speed	2X2 Dual band Wi-Fi a/b/g/n/ac + BT4.2	N / A	N / A	N / A
USB 3.1		1@front, USB3.1 Front Panel Connector*+2@back (1xType-A + 1xUSB Type-C)	1@front, USB3.1 Front Panel Connector*+2@back (1xType-A + 1xType-C)	3 (rear 2xType-A, 1xType-C)	2@back(2xType A)	2@back(2xTypeA)
USB 3.0		4@front, 8@back(1 port for USB BIOS Flashback support)	4@front, 4@back(1 port for USB BIOS Flashback support)	4@front	2@front, 3@back (1xType C +2xType A)	4@front, 2@back
USB 2.0		2	4	6	6	6
Aura RGB Lighting		V	V	V	V	N / A
4-pin RGB Header / Addressable RGB Header		1 / 1	1 / 2	0 / 1	0 / 1	0 / 0
Aura Sync		V	V	V	V	N / A

						
Model Name		ROG STRIX B360-H GAMING	TUF B360-PLUS GAMING	TUF B360M-PLUS GAMING 5	PRIME B360M-A	PRIME B360M-K
CPU		Intel® Socket 1151 for 8th Generation Core™ Processors				
Chipset		Intel B360 Chipset				
Socket		LGA1151	LGA1151	LGA1151	LGA1151	LGA1151
Form Factor		ATX	ATX	mATX	mATX	mATX
ASUS Xtreme Phase		DIGI + VRM	4+2+1 Phase Digital	7 Phase digital	5 Phase Digital	5 Phase digital
Memory	Memory Slots / Maximum	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	2 x DIMM, Max. 32GB, DDR4
	Memory Frequency (MHz)	2666 MHz	2666 MHz	2666 MHz	2666 MHz	2666 MHz
Onboard VGA Output		1 x DVI + 1 x HDMI	1 x D-Sub + 1 x HDMI	1 x DVI + 1 x HDMI	1 x D-Sub + 1 x DVI + 1 x HDMI	1 x D-Sub + 1 x DVI
Graphic Slot		2 x PCIe 3.0/2.0 x16 (x16/x4) 4 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 mode) 1 x PCIe 3.0/2.0 x16 (x2 mode) 4 x PCIe 3.0/2.0 x1	1 x PCIe 3.0 x16 (x16 mode) 2 x PCIe 3.0/2.0 x1 (x16 mode) 1 x M.2 Socket (Key E), supports type 2230 Wi-Fi/BT and Intel® CNVi (Integrated Wi-Fi/BT) module	1 x PCIe 3.0 x16 (x16 mode) 2 x PCIe 3.0/2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 mode, gray) 2 x PCIe 3.0/2.0 x1
Multi-VGA		CrossFire @x16/x4	CrossFire @x16/x2	N / A	N / A	N / A
SATA		SATA 6Gb/s x 6	SATA 6Gb/s x 8 (RAID 0,1,5,10)	SATA 6Gb/s x 6	SATA 6Gb/s x 6	SATA 6Gb/s x 6
M.2		1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (PCIe 3.0 x 2 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & x4 PCIe mode)
LAN		Intel® I219V	Intel® I219V TUF LANGuard	Intel® I219V TUF LANGuard	Realtek® RTL8111H	Realtek® RTL8111H
WiFi		N / A	N / A	N / A	N / A	N / A
USB 3.1		2@back(2xType A)	2@back(2xType A)	2@back(2xType A)	2@back(2xType A)	2@back(2xTypeA)
USB 3.0		2@front, 2@back	2@front, 2@back	2@front, 1@back	2@front, 1@back	2@front, 2@back
USB 2.0		6	6	5	6	6
Aura RGB Lighting		V	V	V	N / A	N / A
4-pin RGB Header / Addressable RGB Header		0 / 1	0 / 1	0 / 1	0 / 1	0 / 0
Aura Sync		V	V	V	N / A	N / A

\*Double Capacity DRAM support depends on the DRAM types



# SPEC TABLE

Model Name	ROG ZENITH EXTREME	ROG STRIX X399-E GAMING	PRIME X399-A	ROG CROSSHAIR VII HERO (WI-FI)	ROG STRIX X470-F GAMING	TUF X470-PLUS GAMING
CPU	AMD SocketTR4 for 1st and 2nd Gen AMD Ryzen™ Threadripper™ Processors			AMD AM4 Socket AMD Ryzen™ 2nd Generation/Ryzen™ with Radeon™ Vega Graphics/Athlon™ with Radeon™ Vega Graphics/Ryzen™ 1st Generation/7th Generation A-series/Athlon X4 Processors		
Chipset	AMD X399 Chipset			AMD X470 Chipset		
Socket	SocketTR4	SocketTR4	SocketTR4	Socket AM4	Socket AM4	Socket AM4
Form Factor	EATX	EATX	EATX	ATX	ATX	ATX
ASUS Xtreme Phase	8+2+2 Phase Digital (CPU+DRAM)	8+3+2+2 Phase Digital	8+3+2+2 Phase Digital	8+4+2 Phase Digital	DIGI+ VRM	6+4 Phase digital
Memory	Memory Slots / Maximum	8 x DIMM, Max. 128GB, DDR4	8 x DIMM, Max. 128GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4
	Memory Frequency (MHz)	3600 MHz (O.C.)	3600 MHz (O.C.)	3600 MHz (O.C.)	3600 MHz (O.C.)	3466 MHz (O.C.)
Onboard VGA Output	N / A	N / A	N / A	N / A	1 x HDMI + 1 x DP	1 x DVI + 1 x HDMI
Graphics (Expansion) Slot	4 x PCIe 3.0 x16 (x16, x16/x16, x16/x8/x16, 1 x PCIe 2.0 x4, 1 x PCIe 2.0 x1)	4 x PCIe 3.0 x16 (single@x16, dual@x16/x16, triple@x16/x16/x8 mode) 1 x PCIe 2.0 x4 (max at x4 mode) 1 x PCIe 2.0 x1	4 x PCIe 3.0 x16 (single@x16, dual@x16/x16, triple@x16/x16/x8 mode) 1 x PCIe 2.0 x4 (max at x4 mode) 1 x PCIe 2.0 x1	2 x PCIe 3.0/2.0 x16 (x16 or dual x8) 1 x PCIe 2.0 x16 (max at x4 mode) 2 x PCIe 2.0 x1	2 x PCIe 3.0 x16 (x16 or dual x8) 1 x PCIe 2.0 x16 (max at x4 mode) 3 x PCIe 2.0 x1	1 x PCIe 3.0/2.0 x1 (x16 mode) 1 x PCIe 2.0 x16 (max at x4 mode) 3 x PCIe 2.0 x1
Multi-GPU Support	4-Way SLI/CrossFireX-@x16/x8/x16/x8	3-Way SLI+CrossFireX-@x16/x16/x8, 2-Way SLI/CrossFireX@x-16/x16	3-Way SLI+CrossFireX-@x16/x16/x8, 2-Way SLI/CrossFireX@x-16/x16	2-Way SLI@x8/x8 + 3-Way CFX@x8/x8/x4	2-way SLI + 3-way CrossFireX	CrossFire @x16/x4
SATA	SATA 6Gb/s x 6 (RAID 0, 1, 10)	SATA 6Gb/s x 6 (RAID 0, 1, 10)	SATA 6Gb/s x 6 (RAID 0, 1, 10)	SATA 6Gb/s x 6 (RAID 0, 1, 10)	SATA 6Gb/s x 6	SATA 6Gb/s x 6 (RAID 0, 1, 10)
M.2	2 x M.2 Socket 3, 2242/2260/2280/22110 (Supports both SATA & PCIe SSD) 1 x M.2 Socket 3, 2242/2260/2280 (both SATA & PCIe mode) 1 x U.2 port	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x 4 mode) 1 x U.2 port	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x 4 mode) 1 x U.2 port	1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA mode)	1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode)	1 x M.2 Socket 3, 2242/2260/2280/22110 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode)
LAN	Intel® I211-AT	Intel® I211-AT	Intel® I211-AT	Intel® I211-AT	Intel® I211-AT	Realtek® RTL8111H TUF LANGuard
WiFi	802.11ad(WiGig)+2X2 Dual Band Wi-Fi a/b/g/n/ac + BT1.1	802.11 a/b/g/n/ac	N / A	2X2 Dual band Wi-Fi a/b/g/n/ac + BT4.2	N / A	N / A
USB 3.1	1@front(USB3.1 Front PanelConnector) +2@back (1 x Type-A + 1 x USB Type-C)	1@front(USB3.1 Front PanelConnector) +2@back (1 x Type-A + 1 x USB Type-C)	1@front(USB3.1 Front PanelConnector) +2@back (1 x Type-A + 1 x USB Type-C)	1@front(USB3.1 Front PanelConnector) +2@back (1 x Type-A + 1 x USB Type-C)	3(rear: 2 x Type-A, 1 front panel header)	2@back(2 X Type A)
USB 3.0	4@front, 8@back	4@front, 8@back	4@front, 8@back	2@front, 8@back	2@front, 6@back	4@front, 3@ back (1xType C +2xType A)
USB 2.0	2	4	4	5	4	6
Aura RGB Lighting	V	V	V	V	V	V
4-pin RGB Header / Addressable RGB Header	2 / 1	2 / 1	2 / 1	2 / 1	2 / 1	1
Aura Sync	V	V	V	V	V	V

Model Name	ROG STRIX B450-F GAMING	TUF B450M-PLUS GAMING	PRIME B450M-K	PRIME A320M-K
CPU	AMD AM4 Socket AMD Ryzen™ 2nd Generation/Ryzen™ with Radeon™ Vega Graphics/Athlon™ with Radeon™ Vega Graphics/Ryzen™ 1st Generation Processors			
Chipset	AMD B450 Chipset			AMD A320 Chipset
Socket	AM4	AM4	AM4	AM4
Form Factor	ATX	mATX	mATX	mATX
ASUS Xtreme Phase	4+4+1 Phase Digital	4+2 Phase Digital	4+2 Phase Digital	6 Phase Digital
Memory	Memory Slots / Maximum	4 x DIMM, Max. 64GB, DDR4	4 x DIMM, Max. 64GB, DDR4	2 x DIMM, Max. 32GB, DDR4
	Memory Frequency (MHz)	3466 MHz (O.C.)	3533 MHz (O.C.)	3466 MHz (O.C.)
Onboard VGA Output	1 x HDMI + 1 x DP	1 x DVI + 1 x HDMI	1 x D-Sub + 1 x DVI	1 x DVI + 1 x HDMI
Graphic Slot	2 x PCIe 3.0/2.0 x16 (x16 or x8/x4) 1 x PCIe 2.0 x16 (max at x4 mode) 3 x PCIe 2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 mode) 1 x PCIe 2.0 x16 (max at x4 mode) 1 x PCIe 2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 mode) 2 x PCIe 2.0 x1	1 x PCIe 3.0/2.0 x16 (x16 mode) 2 x PCIe 2.0 x1
Multi-VGA	3-Way CFX	CrossFire @x16/x4	N / A	N / A
SATA	SATA 6Gb/s x 6 (RAID 0, 1, 10)	SATA 6Gb/s x 6 (RAID 0, 1, 10)	SATA 6Gb/s x 4 (RAID 0, 1, 10)	SATA 6Gb/s x 6 (RAID 0, 1, 10)
M.2	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 2 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode) 1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode)	1 x M.2 Socket 3, 2242/2260/2280 (SATA & PCIe 3.0 x 4 mode)
LAN	Intel® I211-AT	Realtek® RTL8111H	Realtek® RTL8111H	Realtek® RTL8111H
WiFi	N / A	N / A	N / A	N / A
USB 3.1	2@back (2 X Type A)	1@back (Type A)	2@back (2 X Type A)	N / A
USB 3.0	2@front, 4@back	2@front, 3@ back	2@front, 4@back	2@front, 4@back
USB 2.0	6	6	4	6
Aura RGB Lighting	V	V	N / A	N / A
RGB Header	2	1	0	0
Aura Sync	V	V	N / A	N / A

\*Double Capacity DRAM support depends on the DRAM types





NO.1 GAMING BRAND WORLDWIDE



# ROG STRIX GEFORCE RTX™ 2080 TI & 2080

## VICTORY REDEFINED



### Axial-tech Fans with IP5X Dust Resistance

Improved airflow and dispersion, ultra-low noise, and 0dB fan-stop mode

### MaxContact Technology with 2.7-Slot Design

Massive heatsink and precision-machined copper plate for improved thermal transfer

### Reinforced Frame

Improves rigidity and prevents excessive torsion and lateral bending of the PCB

### Auto-Extreme Technology

Precision automated manufacturing to enhance reliability

### Aura Sync

Match your card's RGB LEDs to your system using Aura Sync software

### GPU Tweak II

GPU performance tweaking with customizable OSD plus XSplit Gamecaster and wfast software



## Outshine The Competition

Aura RGB Lighting with Perfect Synchronization



Express your own unique style with millions of colors and 6 different effects. Enjoy synchronized lighting when paired with a compatible ASUS motherboard.

### ASUS Graphics Cards to Fit All Your Needs

#### WATERCOOLING

Air or Liquid - Your Choice to Chill



ROG POSEIDON

#### ENTHUSIASTIC GAMING

Outshine the Competition



ROG STRIX

#### COLOR-MATCHING

The Sweet Spot Performance



DUAL

#### NON-STOP RELIABILITY

Build for Non-Stop Action



EXPEDITION

#### SUPERIOR SLI SYSTEM

Perfect Your Build



TURBO

#### SMALL FORM FACTOR

Best for Your Compact Build



PHOENIX

## The World's Most Award-Winning Graphics Card



CHIP Editors' Choice Award  
MATRIX-GTX980TI-P-6GD5-GAMING  
POSEIDON-GTX980TI-P-6GD5  
ROG Strix GTX1080



TECH CRITTER GOLD  
Expedition GeForce  
GTX 1050 Ti



PC.com Gold Choice Award  
Radeon R7 370 strix

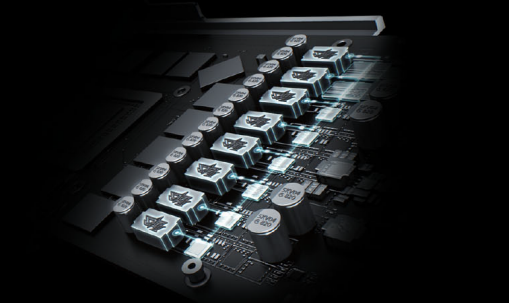


Pekdeward Gold  
ROG STRIX GeForce GTX 1070 OC  
ROG STRIX GeForce GTX 1070 8GB  
Expedition GeForce GTX 1050 Ti  
Strix GeForce GTX 1080 8GB OC



GOLDFRIES.COM  
STRIX-GTX980TI-DC3OC-6GD5-GAMING  
Expedition GeForce GTX 1050 Ti  
ROG Strix RX460  
ROG Strix RX470





## MaxContact Technology

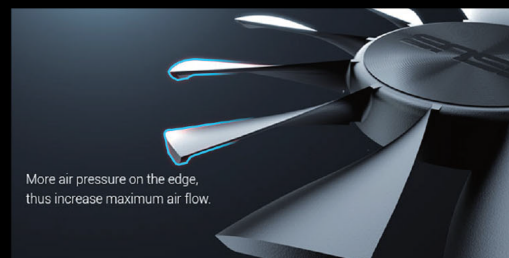
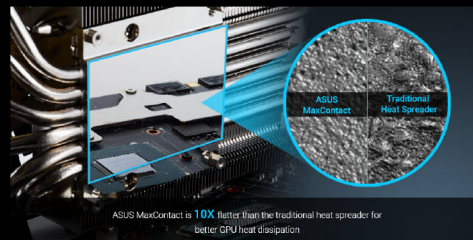
2X More Contact with GPU for Improved Thermal Transfer

MaxContact is an industry-first GPU cooling technology, featuring an enhanced copper heat spreader that directly contacts the GPU. MaxContact utilizes precision machining to provide a surface that makes up to 2X more contact with the GPU than traditional heat spreaders, resulting in improved thermal transfer.

## Auto-Extreme Technology

Industry-only 100% Automated Production Process

All ASUS graphics cards are now produced using Auto-Extreme Technology, an industry-exclusive, 100% automated production process that incorporates premium materials to set a new standard of quality. Auto-Extreme Technology ensures consistent graphics card quality as well as improved performance and longevity. This new manufacturing process is also environmentally friendly, eliminating harsh chemicals and reducing power consumption by 50%.



## Patented Triple Wing-Blade 0dB Fans

30% Cooler and 3X Quieter Performance

DirectCU III features triple 0dB fans engineered with a patented wing-blade design that delivers maximum air flow and improved 105% static pressure over the heat sink, while operating at 3X quieter volumes than reference cards. The 0dB fans also let you enjoy games in complete silence and make DirectCU III the coolest and quietest graphics card in the market.

## 8+2 Phase Super Alloy Power II

Enhanced Durability and Efficiency

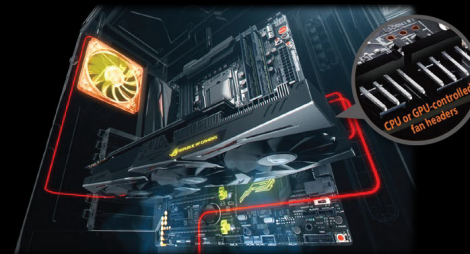
ASUS engineers have integrated premium alloy components into their graphics card designs to reinforce overall reliability. Super Alloy Power II components greatly enhance efficiency, reduce power loss and achieve thermal levels that are approximately 50% cooler than previous designs.



## VR-friendly HDMI Ports

Enjoy Immersive Virtual Reality Experience

ROG Strix graphics cards have two HDMI ports for connecting a VR device and display at the same time, so you can enjoy immersive virtual reality experiences anytime without having to swap cables.



## ASUS FanConnect II

Optimal System Cooling

ASUS FanConnect II features two 4-pin, hybrid-controlled headers that can be connected to both PWM and DC system fans for optimal system cooling. The connected fans reference both the GPU and CPU, operating automatically based on the one with the higher temperature. A comprehensive set of tuning options allow you to tune fan speeds for efficient cooling.



## GPU Tweak II

Enhanced Performance Tuning

The ASUS GPU Tweak II utility takes graphics card performance tuning and monitoring to the next level. It allows you to tweak critical GPU parameters including clock frequency, graphics memory, voltage settings, and more with the option to monitor everything in real-time through a customizable on-screen display. From fine-grain performance tuning, to advanced fan control and temperature monitoring, GPU Tweak II has all the tools you need to get the most out of your graphics card.

### Simple Mode

To the uninitiated, GPU tweaking can be complex and cumbersome. If you're not someone who likes fiddling with a lot of controls, GPU Tweak II's Simple Mode allows you to tune your card at the click of a button. You can select from the pre-configured Gaming, Silent, or OC profiles and you're ready to go.



### Gaming Mode (default)

If you're looking for a standardized out-of-the-box experience, Gaming Mode will set your graphics card to default settings. This is useful when troubleshooting or testing other components.

### Silent Mode

Obsessed with immersion? Silent Mode will help reduce noise from your graphics card by adjusting GPU Core Frequency and power target to keep fan speeds below a particular threshold. Paired with an ASUS graphics card, you might even find you can game in silence.

### OC Mode

Select OC Mode and let GPU Tweak II give you a free performance boost. Frequency and power target are raised based on pre-defined profiles, which means a worry-free one-click overclock for you.

### Professional Mode

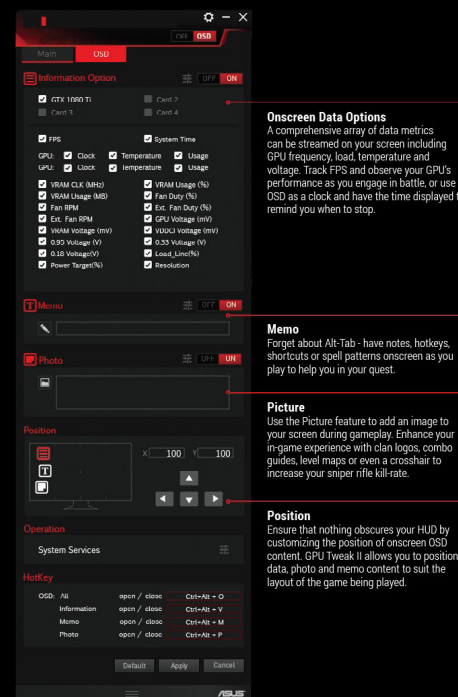
Professional Mode is for experienced enthusiasts who want full control over their graphics card. In addition to the basics, GPU Tweak II provides convenient access to frame rate control, display refresh rate, and a comprehensive monitoring suite. You can even save your application settings to a profile for easy management.



o Advanced GPU tuning  
o Fan control / temps / load monitoring

### On Screen Display (OSD)




Being able to customize every part of the gaming experience is why we build our own PCs. To that end, we've built up a whole new On Screen Display (OSD) function that offers a lot of new ways to control what you see on-screen. Our overlay can display frame-rates, GPU clocks, and everything you'd expect, plus we've built-in the unique capability to display memos and images.





# SPEC TABLE

						
Model Name	ROG-STRIX-RTX2080TI-O11G-GAMING	DUAL-RTX2080TI-O11G	ROG-STRIX-RTX2080-O8G-GAMING	DUAL-RTX2080-O8G	ROG-STRIX-RTX2070-O8G-GAMING	DUAL-RTX2070-O8G
Series	RTX 2080 Series				RTX 2070 Series	
Core Clock(MHz)	1665 (OC)	1650 (OC)	1890 (OC)	1830 (OC)	1759 (Boost)	1683 (Boost)
CUDA Core	4352	4352	2944	2944	2432	2432
Memory Size	11GB GDDR6	11GB GDDR6	8GB GDDR6	8GB GDDR6	8 GBGDDR5	8 GBGDDR5
Memory CLK(MHz)	14000	14000	14000	14000	8008	8008
Memory Bus	352-bit	352-bit	256-bit	256-bit	256-bit	256-bit
Cooling Solution	MaxContact	MaxContact	MaxContact	MaxContact	DirectCU III	DirectCU III
Fan	3	2	3	2	3	2
Power Consumption	PSU: 650W	PSU: 650W	PSU: 650W	PSU: 650W	225W PSU: 500W	225W PSU: 500W
Card Bus	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0
DirectX Version	DX12	DX12	DX12	DX12	DX12	DX12
On Board I/O	HDMI 2.0b x 2 DP 1.4 x 2 USB Type-C/HDCCP 2.2 support	HDMI 2.0b x 1 DP 1.4 x 3 USB Type-C/HDCCP 2.2 support	HDMI 2.0b x 1 DP 1.4 x 3 USB Type-C/HDCCP 2.2 support	DVI-D HDMI x 2 (V 2.0) Display Port x 2/HDCCP Support : Yes	DVI-D HDMI x 2 (V 2.0) Display Port x 2/HDCCP Support : Yes	DVI-D HDMI x 2 (V 2.0) Display Port x 2/HDCCP Support : Yes
Display Support	4	4	4	4	4	4
Card Size (mm)	304.7 x 130.4 x 54.1	268 x 114 x 58	304.7 x 130.4 x 54.1	268 x 114 x 58	298 x 134 x 40	270 x 120.8 x 51
Asus Unique Feature	Auto-Extreme Technology/ASUS GPU Tweak II & Driver/ASUS FanConnect II, 2.7 Slot Design/Dual BIOS Switch, Axial-tech Fans	ASUS GPU Tweak II & Driver/Wing-blade 0dB Fan with IPSX Dust Resistance/Protective Backplate	ASUS GPU Tweak II & Driver/Wing-blade 0dB Fan with IPSX Dust Resistance/Protective Backplate	ASUS GPU Tweak II & Driver/Wing-blade 0dB Fan with IPSX Dust Resistance/Protective Backplate	Asus Fan Connect 100% Auto-Extreme Technology/Super Alloy Power II ASUS GPU Tweak II & Driver	Asus Fan Connect 100% Auto-Extreme Technology/Super Alloy Power II ASUS GPU Tweak II & Driver
Feature	Digital Max Resolution 7680x4320 x ROG Velero Hook & Loop/Power Connector : 2 x 8-pin/VR Ready	Digital Max Resolution 7680x4320 Power Connector : 2 x 8-pin/VR Ready	Digital Max Resolution 7680x4320 Power Connector : 2 x 8-pin/VR Ready	Digital Max Resolution 7680x4320 Power Connector : 2 x 8-pin/VR Ready	Digital Max Resolution 7680x4320 x ROG Cable Ties/Power Connector : 1 x 8-pin/VR Ready	Digital Max Resolution 7680x4320 x ROG Cable Ties/Power Connector : 1 x 8-pin/VR Ready

				
Model Name	ROG STRIX-GTX 1060-O6G-GAMING	ROG STRIX-GTX 1060-A6G-GAMING	ROG STRIX-GTX 1060-DC206G	DUAL-GTX 1060-O6G
Series	GTX 1060 Series			
Core Clock(MHz)	1873 (OC)	1873 (OC)	1809 (OC)	1809 (OC)
CUDA Core	1280	1280	1280	1280
Memory Size	6 GBGDDR5	6 GBGDDR5	6 GBGDDR5	6 GBGDDR5
Memory CLK(MHz)	8208	8208	8008	8008
Memory Bus	192-bit	192-bit	192-bit	192-bit
Cooling Solution	DirectCU III	DirectCU III	Active	Active
Fan	3	3	2	2
Power Consumption	225W PSU: 500W	225W PSU: 500W	150W PSU: 500W	150W PSU: 500W
Card Bus	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0
DirectX Version	DX12	DX12	DX12	DX12
On Board I/O	DVI-D HDMI x 2 (V 2.0) Display Port x 2 HDCCP Support : Yes	DVI-D HDMI x 2 (V 2.0) Display Port x 2 HDCCP Support : Yes	DVI-D HDMI x 2 (V 2.0) Display Port x 2 HDCCP Support : Yes	DVI-D HDMI x 2 (V 2.0) Display Port x 2 HDCCP Support : Yes
Display Support	4	4	4	4
Card Size (mm)	298 x 134 x 40	298 x 134 x 40	242 x 130 x 43	242 x 130 x 43
Asus Unique Feature	Asus Fan Connect 100% Auto-Extreme Technology/Super Alloy Power II ASUS GPU Tweak II & Driver	Asus Fan Connect 100% Auto-Extreme Technology/Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology/Super Alloy Power II IASUS GPU Tweak II & Driver	100% Auto-Extreme Technology/Super Alloy Power II IASUS GPU Tweak II & Driver
Feature	Digital Max Resolution: 7680x4320 2 x ROG Cable Ties Power Connector : 1 x 8-pin/VR Ready	Digital Max Resolution: 7680x4320 2 x ROG Cable Ties Power Connector : 1 x 8-pin/VR Ready	Digital Max Resolution: 7680x4320 Power Connector : 1 x 6-pin/VR Ready	Digital Max Resolution: 7680x4320 Power Connector : 1 x 6-pin/VR Ready



# SPEC TABLE

					
Model Name	ROG STRIX-GTX 1050TI-04G-GAMING	ROG STRIX-GTX 1050TI-4G-GAMING	CERBERUS-GTX 1050TI-04G	GTX 1050TI-04G-LP-BRK	PH-GTX 1050TI-4G
Series	GTX 1050 Series				
Core Clock(MHz)	1506 (OC)	1392 (Boost)	1480 (OC)	1392 (Boost)	1392 (Boost)
CUDA Core	768	768	768	768	768
Memory Size	4 GBGDDR5	4 GBGDDR5	4 GBGDDR5	4 GBGDDR5	4 GBGDDR5
Memory CLK(MHz)	7008	7008	7008	7008	7008
Memory Bus	128-bit	128-bit	128-bit	128-bit	128-bit
Cooling Solution	DirectCU II	DirectCU II	Dual Fan	Single Fan	Single Fan
Fan	2	2	2	1	1
Power Consumption	150W PSU: 300W	150W PSU: 300W	75W PSU: 300W	75W PSU: 300W	75W PSU: 300W
Card Bus	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0
DirectX Version	DX12	DX12	DX12	DX12	DX12
On Board I/O	DVI-D x 2 HDMI (V 2.0) Display Port HDCP Support : Yes	DVI-D x 2 HDMI (V 2.0) Display Port HDCP Support : Yes	DVI-D x 2 HDMI (V 2.0) Display Port HDCP Support : Yes	DVI-D x 2 HDMI (V 2.0) Display Port HDCP Support : Yes	DVI-D x 2 HDMI (V 2.0) Display Port HDCP Support : Yes
Display Support	4	4	3	3	3
Card Size (mm)	241 x 129 x 40	241 x 129 x 40	203 x 115 x 38	212 x 111 x 38	212 x 111 x 38
Asus Unique Feature	Asus Fan Connect, GPU Tweak II & DriverDirectCU II with Patented Wing-Blade Fans100% Auto-Extreme Technology Super Alloy Power II	Asus Fan Connect, GPU Tweak II & DriverDirectCU II with Patented Wing-Blade Fans100% Auto-Extreme Technology Super Alloy Power II	IP5X-Certified Dust Resistance100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	Dual-ball bearing fan100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	Dual-ball bearing fan100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver
Feature	Digital Max Resolution: 7680x4320 Power Connector : 1 x 6-pin	Digital Max Resolution: 7680x4320 Power Connector : 1 x 6-pin	Digital Max Resolution: 7680x4320	Digital Max Resolution: 7680x4320	Digital Max Resolution: 7680x4320

						
Model Name	PH-GT 1030-02G	GT 1030-SL-2G-BRK	GT 710-SL-2GD5-BRK	GT 710-SL-1GD5-BRK	GT 710-2-SL-BRK	GT 710-1-SL-BRK
Series	Main Stream					
Core Clock(MHz)	1531 (OC)	1506 (OC)	954	954	954	954
CUDA Core	384	384	192	192	192	192
Memory Size	2 GBGDDR5	2 GBGDDR5	2 GBGDDR5	1 GBGDDR5	2 GBGDDR3	1 GBGDDR3
Memory CLK(MHz)	3004	3004	1800	1800	1800	1800
Memory Bus	64-bit	64-bit	64-bit	64-bit	64-bit	64-bit
Cooling Solution	Single Fan	Passive	Passive	Passive	Passive	Passive
Fan	1	-	-	-	-	-
Power Consumption	75W PSU: 400W	75W PSU: 400W	75W PSU: 400W	75W PSU: 400W	75W PSU: 400W	75W PSU: 400W
Card Bus	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0
DirectX Version	DX12	DX12	DX12	DX12	DX12	DX12
On Board I/O	DVI-D HDMI HDCP Support : Yes	DVI-D HDMI HDCP Support : Yes	DVI-D HDMI HDCP Support : Yes	DVI-D HDMI HDCP Support : Yes	DVI-D HDMI HDCP Support : Yes	DVI-D HDMI HDCP Support : Yes
Display Support	2	2	2	2	2	2
Card Size (mm)	184 x 111 x 36	173 x 69 x 40	137 x 69 x 33	137 x 69 x 33	137 x 69 x 33	137 x 69 x 33
Asus Unique Feature	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver
Feature	Max Resolution: DVI - 1920x1200	Max Resolution: DVI - 1920x1200	Max Resolution: DVI - 2560x1600	Max Resolution: DVI - 2560x1600	Max Resolution: DVI - 2560x1600	Max Resolution: DVI - 2560x1600



# SPEC TABLE

							
Model Name	ROG-STRIX-RXVEGA64-08G-GAMING	ROG-STRIX-RXVEGA56-08G-GAMING	ROG-STRIX-RX580-08G-GAMING	ROG-STRIX-RX570-04G-GAMING	AREZ-EX-RX570-04G	AREZ-STRIX-RX560-04G-GAMING	PH-RX550-4G-M7
Series	VEGA Series		RX 5 Series				
Core Clock(MHz)	1380 (OC)	1310 (OC)	1380 (OC)	1310 (OC)	1266 (OC)	1336 (OC)	1183
CUDA Core	-	-	-	-	-	-	-
Memory Size	8GB HBM2	8GB HBM2	8 GBGDDR5	4 GBGDDR5	4 GBGDDR5	4 GBGDDR5	4 GBGDDR5
Memory CLK(MHz)	8000	7000	8000	7000	7000	7000	7000
Memory Bus	256-bit	256-bit	256-bit	256-bit	256-bit	128-bit	128-bit
Cooling Solution	DirectCU III	DirectCU III	DirectCU III	DirectCU II	DirectCU II	DirectCU II	Active
Fan	3	2	3	2	2	2	1
Power Consumption	150W PSU: 300W	150W PSU: 300W	150W PSU: 300W	150W PSU: 300W	75W PSU: 400W	75W PSU: 400W	75W PSU: 400W
Card Bus	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0	PCI-E 3.0
DirectX Version	DX12	DX12	DX12	DX12	DX12	DX12	DX12
On Board I/O	DVI-D x 2 Display Port x 2 HDCP Support : Yes	DVI-D x 2 HDMI Display Port HDCP Support : Yes	DVI-D x 2 HDMI Display Port HDCP Support : Yes	DVI-D x 2 HDMI Display Port HDCP Support : Yes	DVI-D HDMI Display Port HDCP Support : Yes	DVI-D HDMI Display Port HDCP Support : Yes	DVI-D HDMI Display Port HDCP Support : Yes
Display Support	4	4	4	4	3	3	3
Card Size (mm)	298 x 134 x 52.5	240 x 129 x 39	298 x 134 x 52.5	240 x 129 x 39	240 x 130 x 38.9	194 x 120 x 35	182 x 112 x 43
Asus Unique Feature	100% Auto-Extreme Technology Asus Fan Connect II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Asus Fan Connect II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Asus Fan Connect II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Asus Fan Connect II ASUS GPU Tweak II & Driver	100% Auto-Extreme Technology Super Alloy Power II ASUS GPU Tweak II & Driver
Feature	Digital Max Resolution: 7680x4320 Power Connectors: 1 x 8-pin Aura (Graphics Card) Software	Digital Max Resolution: 5120x2880 Power Connectors: 1 x 8-pin Aura (Graphics Card) Utility	Digital Max Resolution: 7680x4320 Power Connectors: 1 x 8-pin Aura (Graphics Card) Software	Digital Max Resolution: 5120x2880 Power Connectors: 1 x 8-pin Aura (Graphics Card) Utility	Digital Max Resolution: 5120x2880	Digital Max Resolution: 5120x2880 Aura (Graphics Card) Utility	Digital Max Resolution: 5120x2880



NO. 1 GAMING BRAND WORLDWIDE



## ROG NVLINK™ BRIDGE SCALE UP

### Gaming Performance, Brilliantly Boosted.

Connects two GeForce® RTX NVLink SLI-ready graphics cards with a 40 GB/s link. This means you can count on super-smooth gameplay at 4K and higher resolution with NVIDIA GeForce® RTX 2080 Ti and 2080 graphics cards. Both 3-slot and 4-slot configurations are available and each model is equipped with ASUS-exclusive Aura RGB lighting for flexible customization.



### Choose Your Perfect Fit

Available in both 3-slot and 4-slot variations, the ROG GeForce® RTX NVLink™ is ready to give your system a boost, whether you're searching for more gaming performance on a mainstream platform or pushing the limits of computing on an HEDT setup.

