



## ROG MAXIMUS XIII HERO

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### CPU

Supports Intel® 14 nm CPU

Supports Intel® Turbo Boost Technology 2.0 and Intel® Turbo Boost Max Technology 3.0\*\*

\* Refer to [www.asus.com](http://www.asus.com) for CPU support list.

\*\* Intel® Turbo Boost Max Technology 3.0 support depends on the CPU types.

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### Memory

DDR4 5333(OC)/5133(OC)/5000(OC)/4800(OC)/4700(OC)/4600(OC)/4500(OC)/4400(OC)  
/4266(OC)/4133(OC)/4000(OC)/3866(OC)/3733(OC)/3600(OC)/3466(OC)/3400(OC)/3333(OC)  
/3200/3000/2933/2800/2666/2400/2133 MHz Non-ECC, Un-buffered Memory\*

Dual Channel Memory Architecture

Supports Intel® Extreme Memory Profile (XMP)

OptiMem III

\* 10th Gen Intel® Core™ i7/i9 processors support 2933/2800/2666/2400/2133 natively, others will run at the maximum transfer rate of DDR4 2666MHz.

\* 11th Gen Intel® Core™ processors support 3200/2933/2800/2666/2400/2133 natively.

\* Refer to [www.asus.com](http://www.asus.com) for the Memory QVL (Qualified Vendors Lists), and memory frequency support depends on the CPU types.

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## Graphics

\* Graphics specifications may vary between CPU types.

\*\* Only Intel® 11th Core™ processors support HDMI™ 2.0 with max. resolution of 4K@60Hz, others will only support HDMI™ 1.4 with max. resolution of 4K@30Hz .Please refer to [www.intel.com](http://www.intel.com) for any updates.

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## Expansion Slots

2 x PCIe 4.0/3.0 x16 (x16, x8/x8, x8/x4) + 1 x PCIe 3.0 x16 (max. x4)

### **Intel® 11th &10th Gen Processors**

2 x PCIe 4.0/3.0 x16 slot(s)\*

- Intel® 11th Core™ processors support PCIe 4.0 x16 or x8/x8 or x8/x4 mode(s)

- Intel®10th Core™ processors support PCIe 3.0 x16 or x8/x8 or x8/x4 mode(s)

### **Intel® Z590 Chipset**

1 x PCIe 3.0 x16 slot (supports x4 mode)\*\*

1 x PCIe 3.0 x1 slots

\* Supports PCIe bandwidth bifurcation for RAID on CPU function.

\*\*PCIEX16\_3 shares bandwidth with SATA6G\_12 and SATA6G\_34. When PCIEX16\_3 is populated SATA6G\_12 and SATA6G\_34 will be disabled.

When PCIEX16\_3 run at default (x2) mode, SATA6G\_34 is disabled.

When PCIEX16\_3 run at x4 mode, SATA6G\_12 and SATA6G\_34 are disabled.

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## Multi-GPU Support

Supports NVIDIA 2-Way SLI® Technology\*

\*Support varies with different graphics cards

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## Storage

## Intel® 11th & 10th Gen Processors

M.2\_1 slot (Key M), type 2242/2260/2280/22110

- Only Intel® 11th Core™ processors support PCIe 4.0 x4 mode, this slot will be disabled for other CPUs

M.2\_2 slot (Key M), type 2242/2260/2280\*\*

- Intel® 11th Core™ processors support PCIe 4.0 x4 mode

- Intel® 10th Core™ processors support PCIe 3.0 x4 mode

## Intel® Z590 Chipset

M.2\_3 slot (Key M), type 2242/2260/2280 (supports PCIe 3.0 x4 mode)

M.2\_4 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 3.0 x4 & SATA modes)\*

6 x SATA 6Gb/s ports

Raid function for PCIe mode SSD in Intel® Rapid Storage Technology is available with either 1. Intel® SSDs installed in both CPU-attached and PCH-attached slots, or 2. any other 3rd party SSDs installed in PCH-attached slots.

To enable Intel® Optane™ Memory (Hybrid Storage device), it must be installed in PCH-attached slots with Intel® Rapid Storage Technology.

\*When M.2\_4 is populated, SATA6G\_56 will be disabled.

\*\*M.2\_2 shares bandwidth with PCIEX16\_1 and PCIEX16\_2. When M.2\_2 is enabled, PCIEX16\_1 will run at x8 mode and PCIEX16\_2 will run at x4 mode.

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## Ethernet

2 x Intel® 2.5Gb Ethernet

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# Wireless & Bluetooth

2x2 Tri-Band Intel Wi-Fi a/b/g/n/ac/ax/az + BT5.2

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## USB

Rear USB: Total 10 ports

2 x Thunderbolt™ 4 port(s) (2 x USB Type-C®) with up to 5V/3A, 15W charging support

6 x USB 3.2 Gen 2 port(s) (6 x Type-A)

2 x USB 2.0 port(s) (2 x Type-A)

1 x USB 3.2 Gen 2x2 connector(s) (support(s) USB Type-C®)

2 x USB 3.2 Gen 1 header(s) support(s) additional 4 USB 3.2 Gen 1 ports

2 x USB 2.0 header(s) support(s) additional 4 USB 2.0 ports

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## Audio

### Audio Features

- SupremeFX Shielding Technology
- ESS® SABRE9018Q2C DAC/AMP
- Gold-plated audio jacks
- Rear optical S/PDIF out port
- Premium Japanese audio capacitors

- Audio cover

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## Back Panel I/O Ports

2 x Thunderbolt™ 4 USB Type-C® port(s)

6 x USB 3.2 Gen 2 port(s) (6 x Type-A)

2 x USB 2.0 port(s) (2 x Type-A)

1 x HDMI™ port

1 x ASUS Wi-Fi Module

2 x Intel® I225-V 2.5Gb Ethernet

5 x Gold-plated audio jacks

1 x Optical S/PDIF out port

1 x BIOS FlashBack™ button

1 x Clear CMOS button

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## Internal I/O Connectors

### Fan and Cooling related

1 x 4-pin CPU Fan header(s)

1 x 4-pin CPU OPT Fan header(s)

1 x 4-pin AIO Pump header(s)

3 x 4-pin Chassis Fan header(s)

1 x 4-pin H\_AMP Fan header(s)

1 x W\_PUMP+ header(s)

1 x 2-pin Water In header

1 x 2-pin Water Out header

1 x 3-pin Water Flow header

### **Power related**

1 x 24-pin Main Power connector

2 x 8-pin +12V Power connector

### **Storage related**

4 x M.2 slots (Key M)

6 x SATA 6Gb/s ports

### **USB**

1 x USB 3.2 Gen 2x2 connector (support(s) USB Type-C®)

2 x USB 3.2 Gen 1 header(s) support(s) additional 4 USB 3.2 Gen 1 ports

2 x USB 2.0 header(s) support(s) additional 4 USB 2.0 ports

### **Miscellaneous**

3 x AURA Addressable Gen 2 header(s)

1 x AURA RGB header(s)

1 x FlexKey button

1 x Front Panel Audio header (AAFP)

1 x ReTry button

1 x Speaker header

1 x SPI TPM header (14-1pin)

1 x Start button

1 x 10-1 pin System Panel header

1 x Thermal Sensor header

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## Special Features

### **Extreme OC Kit**

- FlexKey button
- ReTry button
- Start button

### **Extreme Engine Digi+**

- 10K Black Metallic Capacitors
- MicroFine Alloy Choke

### **ASUS Q-Design**

- Q-Code
- Q-Connector
- Q-DIMM
- Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green])
- Q-Slot

### **ASUS Thermal Solution**

- M.2 heatsink backplate

- M.2 heatsink
- VRM heatsink design

### **ASUS EZ DIY**

- BIOS FlashBack™ button
- Clear CMOS button
- ProCool II
- Pre-mounted I/O shield
- SafeSlot

### **AURA Sync**

- AURA RGB header(s)
- Addressable Gen 2 RGB header(s)

### **ASUS HYDRANODE**

- 3 x Chassis fan support\*  
(CHA\_FAN1P,CHA\_FAN2P,CHA\_FAN3P)

\* Visit ASUS Website for the latest compatibility list.

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## **Software Features**

### **ROG Exclusive Software**

- Mem Tweakit
- RAMCache III
- ROG CPU-Z
- GameFirst VI



- Sonic Studio III + Sonic Studio  
Virtual Mixer

- Sonic Radar III

- DTS® Sound Unbound

- Overwolf

- BullGuard Internet Security (1-year  
full version)

### **ASUS Exclusive Software**

Armoury Crate

- AIDA64 Extreme (1 year full version)

- AURA Creator

- AURA Sync

- Two-Way AI Noise Cancelation

AI Suite 3

- 5-Way Optimization with AI Overclocking

TPU

EPU

DIGI+ Power Control

Fan Xpert 4

Turbo app

- EZ update

AI Charger

DAEMON Tools

MyASUS

WinRAR

**UEFI BIOS**

MemTest86

AI Overclocking Guide

ASUS EZ DIY

- ASUS CrashFree BIOS 3

- ASUS EZ Flash 3

- ASUS UEFI BIOS EZ Mode

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## BIOS

256 Mb Flash ROM, UEFI AMI BIOS

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## Manageability

WOL by PME, PXE

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## Accessories

### Cables

1 x ARGB RGB extension cable

1 x RGB extension cable

4 x SATA 6Gb/s cables

### **Miscellaneous**

1 x ASUS Wi-Fi moving antennas

1 x M.2 SSD screw package(s)

1 x Q-connector

1 x ROG key chain

1 x ROG Graphics card holder

1 x ROG stickers

1 x ROG thank you card

### **Installation Media**

1 x Support DVD

### **Documentation**

1 x User manual

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## **Form Factor**

22.5 x 24.4