ROG MAXIMUS XIII HERO_One Page Spec

Note: The specifications are subject to change without notice.

CPU	Intel® Socket LGA1200 for 11th Gen Intel® Core™ processors & 10th Gen Intel® Core™, Pentium® Gold and Celeron® Processors 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 for CPU support list. ** Intel® Turbo Boost Max Technology 3.0 support depends on the CPU types.
Chipset	Intel® Z590 Chipset
Memory	4 x DIMM, Max. 128GB, 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 for the Memory QVL (Qualified Vendors Lists), and memory frequency support depends on the CPU types.
Graphics	1 x HDMI™ 2.0** 2 x Intel® Thunderbolt™ 4 ports (USB Type-C®) support DisplayPort 1.4 and Thunderbolt™ video outputs * 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 for any updates.
Expansion Slots	**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 disbabled. 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.
Multi-GPU Support	Supports NVIDIA 2-Way SLI® Technology* *Support varies with different graphics cards
Storage	**Total supports 4 x M.2 slots and 6 x SATA 6Gb/s ports** **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 pupulated, SATA6G_56 will be disabled.
Ethernet	2 x Intel® I225-V 2.5Gb Ethernet ASUS LANGuard
Wireless & Bluetooth	Intel® Wi-Fi 6E 2x2 Wi-Fi 6E (802.11 a/b/g/n/ac/ax) Supports 2.4/5/6GHz frequency band* Bluetooth v5.2 hardware ready** * WiFi 6E 6GHz regulatory may vary between countries, and function will be ready in Windows 10 build 21H1 or later. ** Bluetooth 5.2 function will be ready in Windows 10 build 21H1 or later.
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) **Front USB (Total 9 ports)** 1 x USB 3.2 Gen 2x2 connector(s) (suppport(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
Audio	ROG SupremeFX 7.1 Surround Sound High Definition Audio CODEC ALC4082 - Impedance sense for front and rear headphone outputs - Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking - High quality 120 dB SNR stereo playback output and 113 dB SNR recording input - Supports up to 32-Bit/384 kHz playback **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
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
	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)

Internal I/O Connectors	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
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.
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
BIOS	256 Mb Flash ROM, UEFI AMI BIOS
Manageability	WOL by PME, PXE
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 logo plate stickers 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
Operating System	Windows® 10 64-bit
Form Factor	ATX Form Factor 12 inch x 9.6 inch (30.5 cm x 24.4 cm)