

ASUS PRIME H310M-R R2.0

Asus Prime H310M-K R2.0 H310 Chipset 9th/ 8th Gen LGA 1151 Motherboard

Product Overview

Asus Prime H310M-K R2.0 H310 Chipset 9th/ 8th Gen LGA 1151 Motherboard, 2 x DIMM, Max. 32GB, DDR4 2666/2400/2133 MHz Non-ECC, Un-buffered Memory, 1 x PS/2 keyboard (purple), 1 x PS/2 mouse (green), 1 x DVI-D, 1 x D-Sub, 1 x LAN (RJ45) port(s), 2 x USB 3.1 Gen 1 (blue) Type-A up to 5Gbps, 2 x USB 2.0, 3 x Audio jack(s), 1 x USB 3.1 Gen 1(up to 5Gbps) connector(s) support(s) additional 2 USB 3.1 Gen 1 port(s) (19-pin), 2 x USB 2.0 connector(s) support(s) additional 4 USB 2.0 port(s), 1 x COM port(s) connector(s), 4 x SATA 6Gb/s connector(s), 1 x CPU Fan connector(s) (1 x 4 -pin), 1 x Chassis Fan connector(s) (1 x 4 -pin), 1 x S/PDIF out header(s), 1 x 24-pin EATX Power connector(s), 1 x 4-pin ATX 12V Power connector(s), 1 x Front panel audio connector(s) (AAFP), 1 x Clear CMOS jumper(s), 1 x System panel connector, 1 x Speaker connector, mATX Form Factor, 22.6 cm x 18.5 cm



Specifications

Features:

Prime

ASUS Prime 300 Series motherboards provide the solid foundation needed for your first build, plus flexibility to grow with your ambitions. We've melded all the good stuff that's packed into the latest 8th Generation Intel® Core™ processors with essential ASUS design and engineering, so you benefit from industry-leading technologies - including automated system tuning, comprehensive cooling controls, and immersive onboard audio. When you build with an ASUS Prime 300 Series motherboard, you build smart, easy and affordably.

Improved DDR4 stability

ASUS OptiMem preserves memory signal integrity by routing traces and vias to the optimal PCB layer, and our T-Topology trace layout ensures time-aligned signaling by balancing trace lengths between memory slots. These enhancements allow the Prime 300 Series to support a wide range of dual and quad-DIMM memory kits, while providing your rig with the stability it needs to deal with any type of workload - whether you're gaming or running intensive applications

Cooler by design

Prime 300 Series features the most comprehensive cooling controls ever, configurable via ASUS Fan Xpert software or the UEFI BIOS.

Multiple temperature sources

Each header can be set to monitor and react to up to three thermal sensors. Via Fan Xpert, you can also assign a sensor to monitor the temperature of supported ASUS graphics cards to ensure optimal cooling during GPU- or CPU-intensive

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workloads.

4-pin PWM/DC fan

Each onboard CHA FAN header supports PWM and DC mode.

Media-acclaimed UEFI BIOS

The UEFI BIOS is an early waypoint on any PC-building journey, and Prime 300 Series has one of the best in the business.

Q-Fan Control

Q-Fan Control Can configure the fan's operating speed manually, or use the easy pre-configured fan profiles to select Standard, Silent, Turbo or Full Speed modes, plus automatic switch to full speed if the temperature hits 75 degreesC.

EZ mode

- Intuitive graphical fan control - Fine-tune individual fans simply by dragging a curve with the mouse.
- SATA Information - Display SATA port details that help you easily recognize drives.
- Fast Clock Adjustment - Use mouse controls to change the time and date.

Advanced mode

- My Favorites - Quickly find tuning options and add preferred tools to the list.
- User Profile - Save BIOS settings for migration to new BIOS version or system.
- SATA Port Renaming - Rename SATA ports for easy identification.

Future-proof connectivity

USB 3.1 Gen 1 is right where you need it, with four super-speed headers for the front panel. Experience data-transfer speeds up to 10X faster than USB 2.0 with instant plug-and-play connectivity, and avoid back-breaking contortions in the hunt for hard-to-reach rear ports.

Built to Last

ASUS is the world's leading motherboard brand. Our motherboards are extensively tested for compatibility with more than 1,000 components and devices, and each new model undergoes a minimum of 8,000 hours of strict validation - offering the peace of mind of knowing that your ASUS motherboard is fit for all environments and applications. Choosing ASUS is an assurance of trouble-free DIY experiences.

5X Protection III

Hardware safeguards to ensure long-term durability.

520+ DDR4 compatibility

Industry-leading DDR4 memory compatibility for best flexibility and reassurance.

1000+ compatible devices

Compatibility with a range of CPUs, memory modules, graphics cards and more.

8000+ validation hours

Extensive testing with latest components for enhanced reliability, compatibility and safety.

5X Protection III

Prime 300 Series motherboards are engineered with industry-leading 5X Protection III, employing the finest components, excellent circuit design and exacting standards to guarantee the quality and long-term durability of your investment. That means exceptional protection and stability for your build - thanks to decades of engineering experience from the world's leading motherboard brand.

Fortified PCIe slot prevents damage

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SafeSlot Core is the ASUS-exclusive PCIe® slot. Featuring a fortified design that's anchored to the motherboard by a special hook, SafeSlot Core provides 1.6X-stronger retention and 1.3X-greater shearing resistance than standard expansion slots.

Pumped-up throughput, 2.5X-higher surge tolerance

ASUS LANGuard is hardware-level networking protection that employs signal-coupling technology and premium anti-EMI surface-mounted capacitors to ensure a more reliable connection and better throughput.

World-class circuit-protecting power design

An exclusive circuit design with built-in voltage regulators protects your motherboard from damage caused by unexpected high-level voltages from unstable or inferior power supplies.

Precision control for stable power

ASUS-exclusive DIGI+ VRM intelligently delivers power to the processor based on real-time demands, reducing energy waste and improving system stability.

Short-circuit damage prevention

Onboard resettable fuses prevent overcurrent and short-circuit damage. This extends beyond I/O ports to DRAM - so it provides a safeguard to protect the lifespan of your system and connected devices.

3X corrosion-resistance for greater durability

Corrosion-resistant stainless-steel back I/O panels bonded with chromium oxide assure a lifespan that's 3X longer than ordinary panels.

Electrostatic discharge protection

ASUS ESD Guards prolong the life of components while preventing damage from electrostatic discharge, providing protection for up to +/- 10kV of air discharge and +/- 6kV of contact discharge.

1000+ Compatible devices and components

The superior compatibility of Prime 300 Series is evidenced by our extensive list of supported devices - which includes thousands of compatible components - and our Qualified Vendor List (QVL) that identifies memory compatibility. It all adds up to more choices for worry-free PC-building experiences.

8000+ VALIDATION HOURS

ASUS motherboards offer superb endurance. We verify this by subjecting every board to more than 8,000 hours of stringent tests. A barrage of burn-in, environmental, compatibility, software and safety tests confirm that our motherboards are exceptionally robust. It also shows that ASUS reliability surpasses industry standards, ensuring that every component is designed to function flawlessly in any environment.

Temperature and humidity tests

Ensures components withstand extreme conditions.

Thermal measurement tests

Ensures that the system remains cool and stable under the heaviest loads.

Insertion tests

Every port and connector is put through repeated installation cycles.

Aging tests

Up to 48-hour aging test ensures reliability.

Power-consumption tests

Delivers world-class energy efficiency.

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Temperature and DC margin tests

Ensures that the motherboard is capable of coping with voltages fluctuations caused by varying temperatures.

Thermal-shock tests

Ensures ability to survive temperature changes during transportation.

Non-operation shock tests

Built to withstand jolts that may occur during shipping.

Burn-in tests

Every component is checked to ensure flawless operation.

Installation tests

Connector placement is double-checked to ensure hassle-free installation.

Drop tests

Drop tests from various heights ensure durability.

Salt and spray tests

Tested for I/O reliability, prolonged lifespan and rust-resistance.

Combined onboard features deliver elevated audio

Intelligent design and premium hardware create audio quality unlike anything you've ever experienced!

Audio shielding

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

Separate layer for left and right tracks

Ensures minimal crosstalk between audio paths.

Premium Japanese-made audio capacitors

Premium parts provide an immersive sound signature, with exceptional fidelity.

Intel H310 chipset

The Intel® H310 is a single-chipset design that supports 8th Generation Intel® Core™ LGA1151 processors. It provides improved performance by utilizing serial point-to-point links, allowing increased bandwidth and stability. Additionally, the H310 chipset provides a maximum of four USB 3.1 Gen 1 ports, four SATA 6Gbps ports, and PCIe 2.0 lane-speed support, for faster data retrieval. Intel H310 also supports integrated-graphics, so you'll enjoy the very latest in graphics performance.

Ready for Socket 1151 for 9th / 8th Gen Intel® Core™, Pentium® Gold and Celeron® processors

This motherboard supports Socket 1151 for 9th Gen and 8th Gen Intel® Core™, Pentium® Gold and Celeron® processors, with integrated graphics, memory and PCI Express controllers to support onboard graphics output with dedicated chipsets, dual-channel (4-DIMM) DDR4 memory and 16 PCI Express 3.0/2.0 lanes for great performance.

Specifications:

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Specifications

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Product Code	PRIME-H310M-R 2.0
CPU	Intel Socket 1151 9th / 8th Gen Intel Core, Pentium Gold and Celeron Processors
	Supports Intel 14 nm CPU
	Supports Intel Turbo Boost Technology 2.0
	* The Intel Turbo Boost Technology 2.0 support depends on the CPU types.
Chipset	Intel H310
Memory	2 x DIMM, Max. 32GB, DDR4 2666/2400/2133 MHz Non-ECC, Un-buffered Memory
	Dual Channel Memory Architecture
	Supports Intel Extreme Memory Profile (XMP)
	* The maximum memory frequency supported varies by processor
	** DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel 8th Gen. 6-core or higher processors.
Graphic	Integrated Graphics Processor- Intel HD Graphics support
	Multi-VGA output support : DVI-D/D-Sub ports
	- Supports DVI-D with max. resolution 1920 x 1200 @ 60 Hz
	- Supports D-sub with max. resolution 1920 x 1200 @ 60 Hz
	Maximum shared memory of 1024 MB (for iGPU exclusively)
	Supports Intel InTru 3D, Quick Sync Video, Clear Video HD Technology, Insider
Expansion Slots	1 x PCIe 3.0/2.0 x16 (x16 mode, gray)
	2 x PCIe 2.0 x1
Storage	Intel H310 Chipset :
	4 x SATA 6Gb/s port(s), gray
LAN	Realtek RTL8111H, 1 x Gigabit LAN
Audio	Realtek ALC887 8-Channel High Definition Audio CODEC
	- Supports : Jack-detection, Front Panel Jack-retasking
	Audio Feature :
	- Audio Shielding: Ensures precision analog/digital separation and greatly reduced multi-lateral interference
	- Dedicated audio PCB layers: Separate layers for left and right channels to guard the quality of the sensitive audio signals
	- Premium Japanese audio capacitors: Provide warm, natural and immersive sound with exceptional clarity and fidelity
	* Choose the chassis with HD audio module in front panel to support 8-channel audio output.
USB Ports	Intel H310 Chipset :
	4 x USB 3.1 Gen 1 up to 5Gbps port(s) (2 at back panel, blue, Type-A, 2 at mid-board)
	Intel H310 Chipset :
	6 x USB 2.0/1.1 port(s) (2 at back panel, 4 at mid-board)

Special Features	ASUS 5X Protection III :
	- ASUS SafeSlot Core: Fortified PCIe Slot prevents damage
	- ASUS LANGuard: Protects against LAN surges, lightning strikes and static-electricity discharges!
	- ASUS Overvoltage Protection: World-class circuit-protecting power design
	- ASUS Stainless-Steel Back I/O: 3X corrosion-resistance for greater durability!
	- ASUS DIGI+ VRM: 4 Phase digital power design
	ASUS OptiMem :
	- Optimem (Improved DDR4 stability)
	ASUS EPU :
	- EPU
	ASUS Exclusive Features :
	- AI Suite 3
	- Ai Charger
	- PC Cleaner
	ASUS Quiet Thermal Solution :
	- Stylish Fanless Design Heat-sink solution
	- ASUS Fan Xpert
	ASUS EZ DIY :
	- ASUS CrashFree BIOS 3
	- ASUS EZ Flash 3
	- ASUS UEFI BIOS EZ Mode
	ASUS Q-Design :
	- ASUS Q-DIMM
Back I/O Ports	1 x PS/2 keyboard (purple)
	1 x PS/2 mouse (green)
	1 x DVI-D
	1 x D-Sub
	1 x LAN (RJ45) port(s)
	2 x USB 3.1 Gen 1 (blue) Type-A up to 5Gbps
	2 x USB 2.0
	3 x Audio jack(s)

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Internal I/O Ports	1 x USB 3.1 Gen 1(up to 5Gbps) connector(s) support(s) additional 2 USB 3.1 Gen 1 port(s) (19-pin)
	2 x USB 2.0 connector(s) support(s) additional 4 USB 2.0 port(s)
	1 x COM port(s) connector(s)
	4 x SATA 6Gb/s connector(s)
	1 x CPU Fan connector(s) (1 x 4 -pin)
	1 x Chassis Fan connector(s) (1 x 4 -pin)
	1 x S/PDIF out header(s)
	1 x 24-pin EATX Power connector(s)
	1 x 4-pin ATX 12V Power connector(s)
	1 x Front panel audio connector(s) (AAFP)
	1 x Clear CMOS jumper(s)
	1 x System panel connector
	1 x Speaker connector
Accessories	User's manual
	I/O Shield
	2 x SATA 6Gb/s cable(s)
	1 x Supporting DVD
BIOS	128 Mb Flash ROM, UEFI AMI BIOS, PnP, SM BIOS 3.1, ACPI 6.1, MultilanguageBIOS, ASUS EZ Flash 3, CrashFree BIOS 3, F6 Qfan Control, F3 MyFavorites, Last Modified log, F12 PrintScreen, and ASUS DRAM SPD (SerialPresence Detect) memory information
Manageability	WOL by PME, PXE
Operating System	Windows 10 64-bit
Form Factor	mATX Form Factor
	8.9 inch x 7.3 inch (22.6 cm x 18.5 cm)

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:

<https://www.comx-computers.co.za/ASUS-PRIME-H310M-R-R2-0-Asus-Prime-H310M-K-R2-0-H310-Buy-p-253430.php>

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