

# HOWARD

## The H310 Desktop 8<sup>th</sup> Generation processing—made affordable!



Step up to 8<sup>th</sup> Generation processing for unrivaled PC performance, and do it without spending a bundle! It's possible with Howard's new H310 desktop computer. The H310 offers a premium layout that includes the latest Intel® processors, as well as X-Boost and Core Boost technology, that enable it to support more cores for faster, undistorted data transfer. It features DDR4, HDMI, and Audio Boost for studio-grade sound quality. The H310 balances its impressive, high-speed performance with low power consumption to ensure cool, efficient operation and an extended lifespan. Howard's low price-point on this model makes it ideal for use by cost-conscious business professionals, teachers and students; in training facilities, schools and computer labs—anywhere budget is a consideration.

The H310—stable, reliable high-performance made affordable by Howard.

- ✓ X-Boost: Software that auto-detects and allows you to boost the performance of any storage or USB device
- ✓ Core Boost: With premium layout and fully digital power design to support more cores and provide better performance
- ✓ Audio Boost: Reward your ears with studio grade sound quality.
- ✓ EZ Debug LED: Easiest way to troubleshoot

Back Ports



### The Howard Advantage!

With every Howard product purchase, you receive the following for **FREE!**

- Phone and web tech support for the LIFE of your system
- 100% US-based, English-speaking customer support 24/7/365
- Phone hold times < 1 minute



Ultrabook, Celeron, Celeron Inside, Core Inside, Intel, Intel Logo, Intel Atom, Intel Atom Inside, Intel Core, Intel Inside, Intel Inside Logo, Intel vPro, Itanium, Itanium Inside, Pentium, Pentium Inside, vPro Inside, Xeon, Xeon Phi, Xeon Inside, and Intel Optane are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

# HOWARD

## H310 Desktop Specifications

### Chipset

Intel® H310

### Operating System

Microsoft Windows® 10, 64-bit

### Processors

Supports 8<sup>th</sup> Generation Intel® Core™ Processors, Pentium® Gold and Celeron® Processors for Socket LGA1151

### System Memory

Up to 32GB of DDR4 ( 2 Slots, DIMM)

### Audio

Realtek® ALC 887 8-channel High-definition

### Network

Realtek RTL8111H, 1 x Gigabit LAN

### Internal Ports

- (1) PCIe 3.0 x16 slot
- (2) PCIe 2.0 x1 slots
- (1) 24-pin ATX main power connector
- (1) 8-pin ATX 12V power connector
- (4) SATA 6Gb/s connectors
- (1) USB 3.1 Gen1 connector (supports additional 2 USB 3.1 Gen1 ports)
- (1) USB 2.0 connector (supports additional 2 USB 2.0 ports)
- (1) Clear CMOS jumper
- (2) Front panel connectors
  - (1) Serial port connector
  - (1) TPM module connector
  - (1) Chassis Intrusion connector
  - (1) Front panel audio connector
  - (1) 4-pin CPU fan connector
  - (1) 4-pin system fan connector

### External Ports

- (1) DVI-D
- (1) VGA
- (1) HDMI
- (1) LAN (RJ45) port
- (2) USB 3.0 (Gen 1, type A-front)
- (2) USB 3.0 (Gen 1, type A-rear)
- (2) USB 2.0 (Front)
- (4) USB 2.0 (Rear)
- (3) Audio jacks- (1) MONO out header \*3
- (1) PS/2 Combo Port

### Chassis Technical Specifications

(Cases subject to change due to configuration and/or availability)

#### MKB

Dimensions: 14.25"(H) x 7"(W) x 17.2"(D)  
Drive Bays: 3.5" (2) Internal (2) External and 5.25" (2) External  
Front Panel: USB=2, Audio=1 Line Out /1 Mic  
PSU: 300W (110 to 240V AC)

#### AKB

Dimensions: 19.30 (H) x 7.5 (W) x 16.7 (D)  
Drive Bays: 3.5" (5) Internal (2) External and 5.25" (3) External (0) Internal  
Front Panel: USB=2, Audio=1 Line Out /1 Mic  
PSU: 300W (110 to 240V AC), Upgradable to 1200W

### Warranty & Support

- Howard Technology Solutions' standard warranties apply.
- **FREE** customer and technical support to purchaser via telephone or web for the life of the system.
- Expedite your troubleshooting process by participating in our Howard Technical Partnership Program (HTPP) which certifies your staff to perform basic hardware service and support. Contact us today for more information.

### Contact Howard Technology Solutions for world-class service and support.

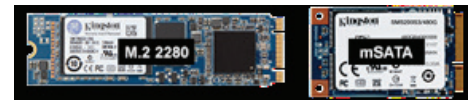
Online: [www.howardcomputers.com/support](http://www.howardcomputers.com/support)  
Phone: 1.888.323.3151  
Email at [tech@howardcomputers.com](mailto:tech@howardcomputers.com), or  
Conventional mail at:

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Ellisville, Mississippi, 39437

### FAQs

#### Q: Is an M.2 SSD the same as an mSATA SSD?

A: No, they are different; M.2 supports both SATA and PCIe storage interface options, while mSATA is SATA only. Physically, they look different and cannot be plugged into the same system connectors. The picture below shows an M.2 SSD and an mSATA SSD (you can see the connector is different, as are their card sizes):



#### Q: Why are there different lengths for M.2 SSDs?

A: There are two reasons for the different lengths of M.2 SSDs:

1. The different lengths enable different SSD drive capacities; the longer the drive, the more NAND Flash chips can be mounted on it, in addition to a controller and possibly a DRAM memory chip. The 2230 and 2242 lengths support 1-3 NAND Flash chips while the 2280 and 22110 support up to 8 NAND Flash chips, which can enable a 1TB SSD in the largest M.2 form factors.
2. Socket space in the system board can limit the M.2 size: Some notebooks can support an M.2 for caching purposes, but only have a small space that will accommodate only a 2242 M.2 SSD (2230 M.2 SSDs are smaller still but not needed in most cases where 2242 M.2 SSDs will fit).