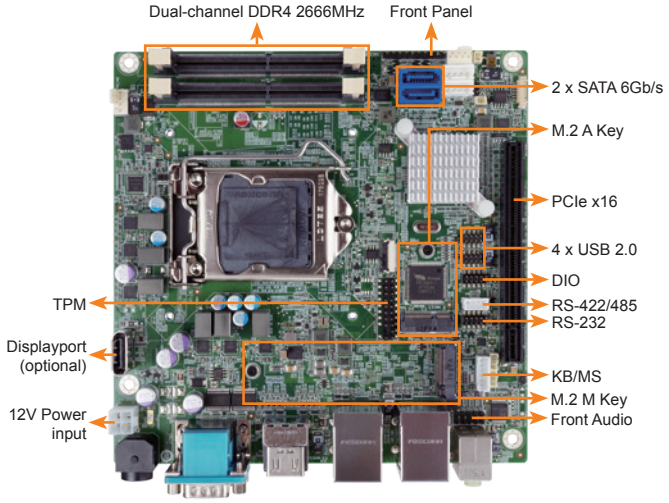
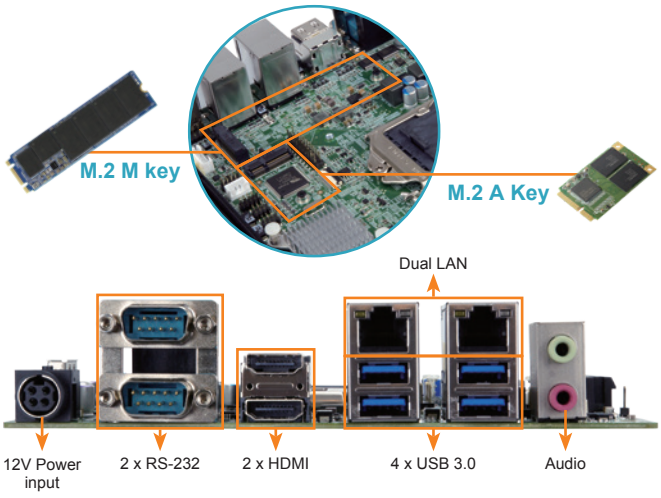
# KINO-DH310

***Mini-ITX SBC supports 14nm LGA1151 Intel® 8th Generation Core™ i7/i5/i3, Celeron® and Pentium® processor, DDR4, dual independent displays, dual GbE LAN, M.2, SATA 6Gb/s, HD Audio and RoHS***




## Specifications

- CPU
  LGA1151 socket supports 8th generation Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor (35W/65W)
- Chipset
  Intel® H310
- BIOS
  AMI UEFI BIOS
- Memory
  Two 260-pin 2666/2400 MHz Dual-Channel DDR4 SDRAM Unbuffered SO-DIMM slots supported up to 64GB
- Graphics Engine
  Intel® HD Graphics Gen9 Engines with Low power 16 execution unit, supports DX11.3/12, OpenGL 4.3/4.4/4.5and OpenCL1.2/2.0/2.1
- Display Output
  Dual independent display
  2 x HDMI (up to 1920x1080@60Hz)
  1 x internal Displayport (up to 4096x2304@60Hz) (optional)
- Ethernet
  LAN1: Realtek RTL8111H PCIe GbE controller
  LAN2: Realtek RTL8111H PCIe GbE controller
- External I/O Interface
  4 x USB 3.0
  2 x RS-232
- Internal I/O Interface
  1 x KB/MS (1x6 pin)
  4 x USB 2.0 (2x4 pin, P=2.0)
  1 x RS-422/485 (1x4 pin, P=2.0)
  1 x RS-232 (2x5 pin, P=2.0)
  2 x SATA 6G/s with 5/12V SATA power connector (No RAID)
- I²C: 1 x I²C (1x4 pin)
- TPM: 1 x TPM (2x10 pin)
- SMBus: 1 x SMBus (1x4 pin)
- Audio
  Realtek ALC662 HD codec
  2 x Audio Jack (Lin-out, Mic-in)
  1 x Front audio (2x5 pin)
- Front Panel
  1 x Front Panel (1x10 pin, Power LED, HDD LED, Power Button, Reset Button)
- LAN LED: 2 x LAN LED (1x2 pin)
- Expansion
  1 x PCIe x16 (Gen3/3.1)
  1 x M.2 M key (2280, Gen2 PCIe x2 only)
  1 x M.2 A Key (2230, Gen2 PCIe x1 & USB 2.0)
- Digital I/O: 1 x 8-bit digital I/O (2x5 pin)
- FAN Connector: 2 x Smart fan connector (1x4 pin)
- Chassis Open
  1 x Chassis intrusion (1x2 pin)
- Power supply
  DC 12V input
  1 x External DC jack (4-pin DIN)
  1 x Internal power connector (2x2 pin)
  Support AT/ATX mode
  ErP/EuP Compliant
- Watchdog Timer: Software Programmable support 1~255 sec. System reset
- Power Consumption
  12V@11.32A (Intel® Core™ i7-8700 up to 4.60 GHz CPU with two 8GB 2666MHz DDR4 memory)
- Operating Temperature: 0°C ~ 60°C
- Storage Temperature: -10°C ~ 70°C
- Operating Humidity: 5% ~ 95%, non-condensing
- Dimension: 170mm x 170mm
- Weight: GW:900g / NW:400g
- CE/FCC compliant

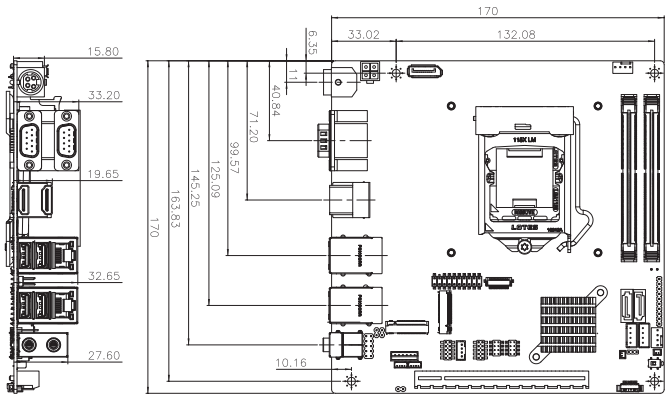
## Features

- LGA1151 Intel® 8th Generation Core™ i7/i5/i3, Celeron® and Pentium® processor
- Dual-channel DDR4 2666MHz
- Support DP & Dual HDMI
- Support M.2 A Key for WLAN expansion & M key for storage
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Packing List

| | |
|---|---|
| 1 x KINO-DH130 single board computer | 1 x SATA cable |
| 1 x I/O Shielding | 1 x QIG |

## Dimensions *(Unit: mm)*




## Ordering Information

| Part No. | Description |
|---|---|
| KINO-DH310-R10 | Mini-ITX SBC supports 14nm LGA1151 Intel® 8th Generation Core™ i7/i5/i3, Celeron® and Pentium® processor, DDR4, dual independent displays, dual GbE LAN, M.2, SATA 6Gb/s, HD Audio and RoHS |
| 32000-023800 | PS/2 KB/MS cable, 135mm, P=2.0 |
| 32000-070301-RS | Dual port USB cable, 210mm, P=2.0 |
| 32205-002700-200-RS | RS-232 cable, 200mm, P=2.0 |
| CF-115XA-RS-R10 | High-performance LGA1155/1156 cooler kit, 1U chassis compatible 73W |
| CF-1156C-RS | LGA1155/LGA1156 cooler kit, 1U chassis compatible, 45W |
| CF-1156D-RS | LGA1155/LGA1156 cooler kit, 1U chassis compatible, 65W |
| TPM-IN02-R20 | 20-pin Infineon TPM 2.0 module, software management tool, firmware v5.5 |