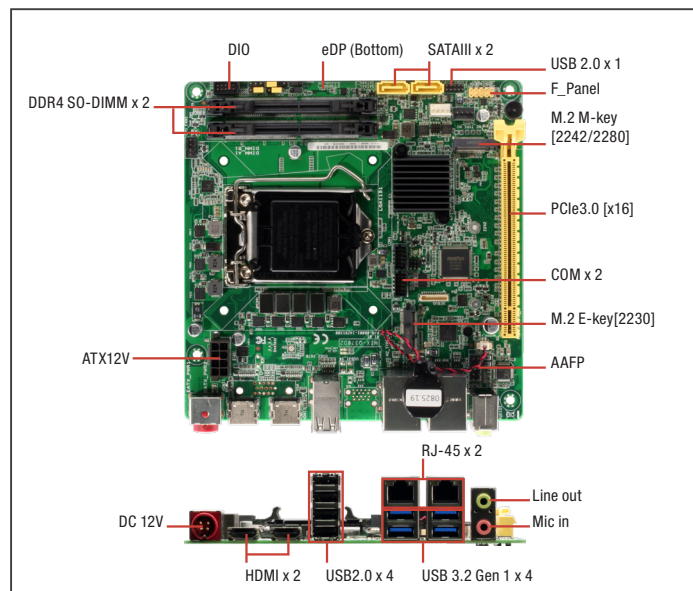


# MIX-H310D2

Mini-ITX with Intel® 8th / 9th Generation Core™ LGA1151 Socket Processor, Max. 65W TDPs, USB 3.2 Gen 1 Port x 4, USB 2.0 Port x 5, 12V DC input



## Specifications

| System                   |                                                                                                               |
|--------------------------|---------------------------------------------------------------------------------------------------------------|
| Processor                | 8th/9th Gen. Intel® Core™ LGA 1151 socket Processor (formerly Coffee Lake-S), Max. 65W TDPs                   |
| Chipset                  | Intel® H310 Express Chipset                                                                                   |
| Memory                   | DDR4 2666/2400/2133 MHz SODIMM x 2, Up to 64GB, Non-ECC, Un-buffered Memory, Dual channel memory architecture |
| I/O Chipset              | NCT6793D                                                                                                      |
| Ethernet                 | Intel® GbE LAN i219V x 1, Intel® GbE LAN i210AT x 1                                                           |
| Audio                    | Realtek® ALC897                                                                                               |
| TPM                      | NPCT750 TPM2.0 (default: No)                                                                                  |
| Expansion Slots          | PCIe3.0 [x16] x 1<br>M.2 E-key(22 x 30 mm) x1 for Wireless-wifi module (PCIe+USB; CNVi)                       |
| BIOS                     | 256Mbit Flash ROM, AMI BIOS                                                                                   |
| H/W Monitor              | Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V/12V, Fan Monitor on CPU/Chassis               |
| WatchDog Timer           | 1~255 steps by software program                                                                               |
| Smart Fan Control        | CPU Fan/ Chassis Fan                                                                                          |
| Wake On LAN/ PXE         | Yes (WOL / PXE)                                                                                               |
| Power State              | S3, S4, S5                                                                                                    |
| Graphics                 |                                                                                                               |
| Graphics Chipset         | Intel® UHD Graphics                                                                                           |
| Graphics Multi Display   | HDMI+HDMI, HDMI+eDP, HDMI+VGA, VGA+eDP                                                                        |
| VGA                      | Up to 1920 x 1200 @ 60 Hz (Optional)                                                                          |
| DVI                      | —                                                                                                             |
| HDMI                     | Up to 3840 x 2160 @30 Hz(HDMI 1.4)                                                                            |
| Display Port             | —                                                                                                             |
| LVDS                     | —                                                                                                             |
| eDP                      | UP to 4096 x 2304 @ 60Hz                                                                                      |
| Backlight Control        | Support eDP                                                                                                   |
| Environment & Power & ME |                                                                                                               |
| Battery                  | Lithium battery                                                                                               |
| Power Requirement        | 12V DC                                                                                                        |
| Operation Temperature    | 32°F ~140°F (0°C ~ 60°C)                                                                                      |
| Storage Temperature      | -40°F ~185°F (-40°C ~85°C)                                                                                    |
| Operation Humidity       | 0%~90%RH, non-condensing                                                                                      |
| Certificate              | CE & FCC                                                                                                      |
| Form Factor              | Mini-ITX: 6.7" x 6.7" (170 mm x 170 mm)                                                                       |
| Weight                   | 1.1 lb (0.5 kg)                                                                                               |
| MTBF (Hours)             | 373,720                                                                                                       |

## Features

- 8th /9th Gen. Intel® Core™ LGA1151 Processor
- DDR4 DRAM Support, 2666MHz, Max. 64GB
- M.2 Slot (M key; PCIe) x 1, M.2 Slot (E key) x 1
- USB 3.2 Gen 1 Port x 4, USB 2.0 Port x 5
- Intel® Gigabit Ethernet x 2
- SATA 6.0 Gb/s x 2
- PCI-Express [x16] (Gen3) x 1
- 12VDC input



### Rear Panel I/O Ports

|             |                                |
|-------------|--------------------------------|
| USB         | USB 3.2 Gen 1 x 4, USB 2.0 x 4 |
| Display I/O | HDMI x 2, VGA x 1 (Optional)   |
| Audio I/O   | Mic-in x 1, Line-out x 1       |
| LAN I/O     | LAN (RJ-45) port x 2           |
| Serial Port | —                              |
| PS/2 Port   | —                              |
| Others      | 12V DC Jack (max:192W)         |

### Internal I/O Connectors

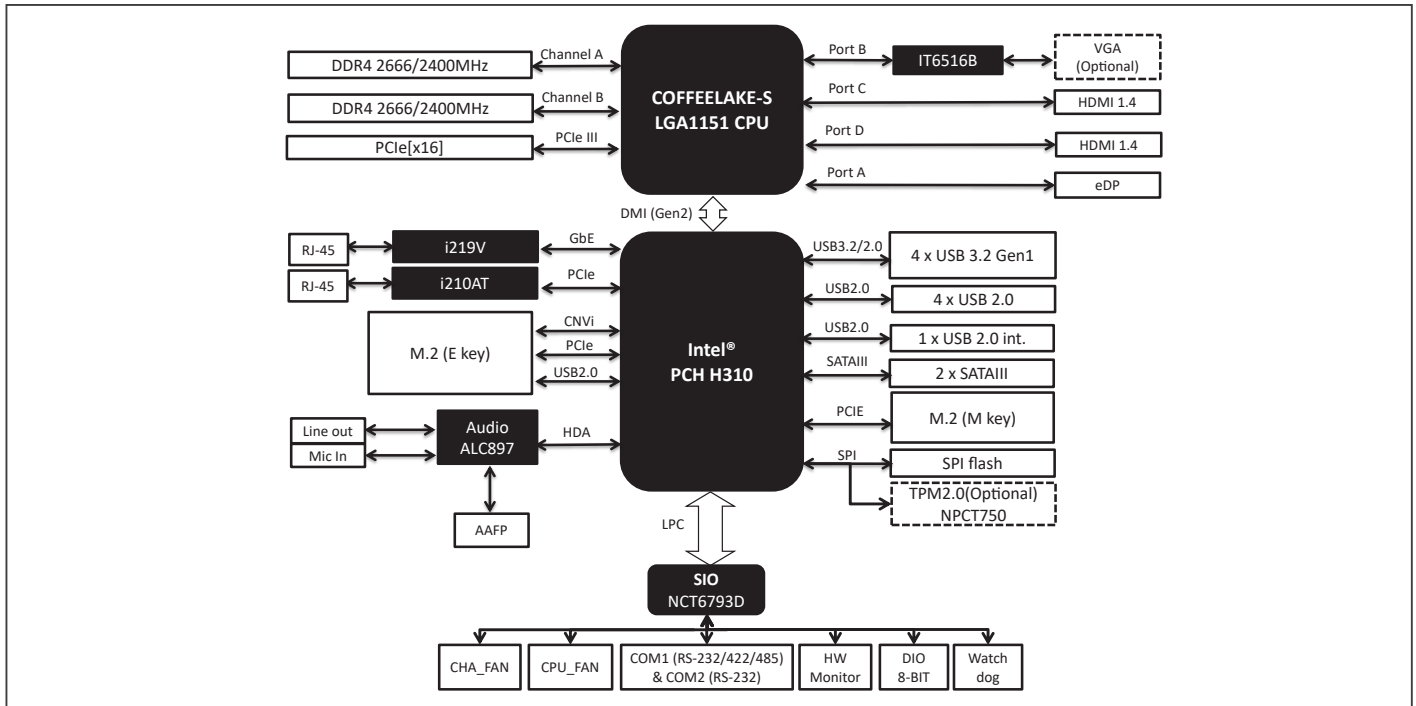
| Storage       | SATA3.0 (6.0Gb/s) x 2<br>M.2 M-key (22 x 42/80mm; PCIe) x 1                                                                                                                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| USB           | USB 2.0 (2 x 5-pin, 2.00mm) x 1 port support additional 1 USB                                                                                                                                                                                 |
| Display I/O   | eDP x 1                                                                                                                                                                                                                                       |
| Audio I/O     | AAFP x 1                                                                                                                                                                                                                                      |
| Serial Port   | Box header for COM (RS-232) x 1; RS-232/422/485 x 1                                                                                                                                                                                           |
| PS/2 Port     | —                                                                                                                                                                                                                                             |
| Parallel Port | —                                                                                                                                                                                                                                             |
| DIO           | Digital I/O box header x 1                                                                                                                                                                                                                    |
| FAN           | 4-pin CPU Fan connector x 1, 4-pin Chassis Fan connector x 1                                                                                                                                                                                  |
| Power         | —                                                                                                                                                                                                                                             |
| Others        | Front Panel connector x 1, Chassis Intrusion x 1, Buzzer onboard x 1, CMOS jumper x 1, ATX/AT mode select x 1, ME disable x 1, eDP Tcon IC voltage select x 1, eDP panel backlight voltage select x 1, COM RI select jumper x 1, SATA PWR x 1 |
| OS            |                                                                                                                                                                                                                                               |
| OS Support    | Windows® 10 64-bit, Linux Ubuntu 18.04.2                                                                                                                                                                                                      |

## Packing List

- SATA Cable
- SATA Power Cable
- I/O Shield
- MIX-H310D2

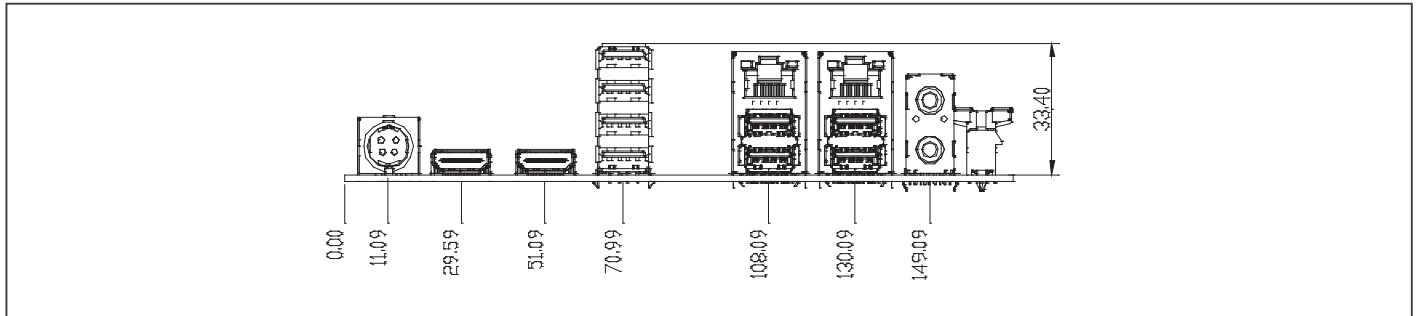


## Block Diagram



## Dimension

Unit: mm



## Ordering Information

| Part number        | CPU    | RAM        | Fan/Fanless | Display         | Storage                     | LVDS | LAN     | USB                             | RS-232 | RS-232/422/485 | Expansion Slot                   | Power  | TPM | Temp.                       |
|--------------------|--------|------------|-------------|-----------------|-----------------------------|------|---------|---------------------------------|--------|----------------|----------------------------------|--------|-----|-----------------------------|
| MIX-H310D2-A11-210 | Socket | SODIMM x 2 | Fan         | HDMI x 2<br>eDP | SATA3 x 2<br>M.2(M-key) x 1 | —    | GbE x 2 | USB2.0 x 5,<br>USB3.2 Gen 1 x 4 | 1      | 1              | PCIe3.0[x16] x 1, M.2(E-Key) x 1 | 12V DC | —   | 32°F ~140°F<br>(0°C ~ 60°C) |

## Optional Accessories

| Part Number   | Description                                                |
|---------------|------------------------------------------------------------|
| 1759200172    | CPU Cooler (2-Ball, Screw with Retention Plate)            |
| 175921156B    | CPU Cooler (2-Ball, Push-pin Type)                         |
| COOLER-65W-01 | CPU Cooler, LGA 1156, 12V, 65W, 4P, Kingcooler, 0571-1463R |
| 1709100201    | USB 2.0 Cable (10P, 200MM, p=2.00mm, w/bracket)            |
| 1701100206    | COM Cable (200MM, p=2.00mm)                                |
| 1709050201    | USB 2.0 Cable (5P, 220mm, p=2.00mm)                        |
| 1255X00011    | (TF)AC/DC Adapter.12V.192W.16A.FSP192-AHAN3.9NA1920100     |

