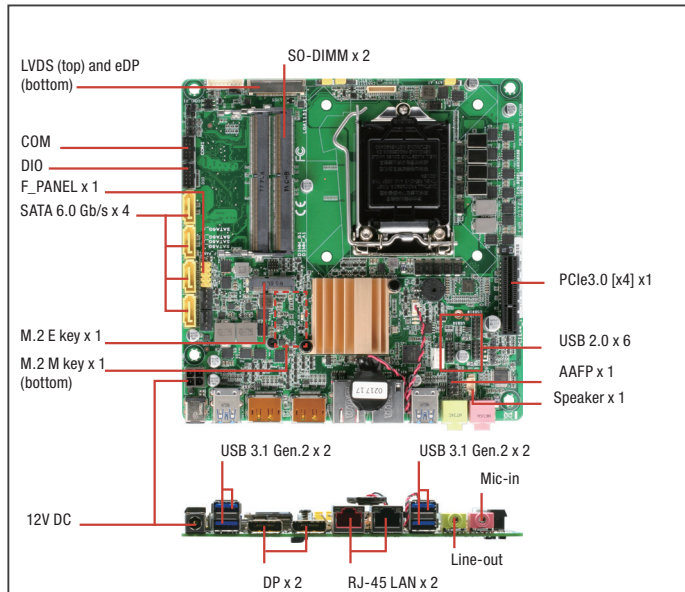


Mini-ITX with 8th Gen Intel® Core Processor Family, DDR4 DRAM, USB x 10, Max. 65W TDPs



## Specifications

| System                   |  |
|--------------------------|--|
| Processor                | 8th Generation Intel® Core™ i7/ i5 /i3, Pentium® LGA 1151 socket Processor (formerly Coffee Lake-S), Max. 65W TDPs                                 |
| Chipset                  | Intel® Q370 Express Chipset  |
| Memory                   | SODIMM x 2, Max. 32GB, DDR4 2666/2400 MHz, Non-ECC, Un-buffered Memory, Dual channel   |
| I/O Chipset              | NCT6793D   |
| Ethernet                 | Intel® PHY i219LM Giga LAN (support Intel® AMT 12.0) x 1<br>Intel® i210AT Giga LAN x 1   |
| Audio                    | Realtek® ALC887  |
| TPM                      | Nuvoton TPM version 2.0  |
| Expansion Slots          | PCIe 3.0 [x4] x 1<br>M.2 M key (22 x 80 mm) x 1 at Bottom side, SATA & PCIe [x4]<br>M.2 E key (22 x 30 mm) x 1 for Wireless-wifi module (PCIe+USB) |
| BIOS                     | 256M bit Flash ROM, AMI BIOS   |
| H/W Monitor              | Temperature Monitor on CPU/System, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on 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® HD Graphics   |
| Graphics Multi Display   | Three Independent Display  |
| VGA                      | —  |
| DVI                      | —  |
| HDMI                     | —  |
| Display Port             | Up to 4096 x 2160 @ 24 Hz / 3840 x 2160 @ 60 Hz, with Digital Audio, DP++ supported  |
| LVDS                     | LVDS Up to 1920 x 1200 @ 60 Hz, dual-channel 18/24 bit (via Chrontel 7511)   |
| eDP                      | eDP UP to 4096 x 2304 @ 60Hz   |
| Backlight Control        | Voltage/PWM  |
| Environment & Power & ME |  |
| Battery                  | Lithium battery  |
| Power Requirement        | 12V DC   |
| Operating Temperature    | 32°F ~ 140°F (0°C ~ 60°C)  |
| Storage Temperature      | -40°F ~ 185°F (-40°C ~ 85°C)   |
| Operating Humidity       | 0% ~ 90% R/H, non-condensing   |
| Certificate              | CE & FCC (Class A)   |
| Form Factor              | Mini-ITX: 6.7" x 6.7" (170 mm x 170 mm)  |
| Weight                   | 1.1 lb (0.5 Kg)  |
| MTBF (Hours)             | 256,310  |

## Features

- DDR4 SODIMM x 2, Up to 32 GB
- Three Independent Display: DP x 2, eDP x 1, LVDS x 1
- Intel® LAN 210AT x 1, 219LM for iAMT 12.0 x 1
- M.2 Slot (M-key) x 1
- M.2 Slot (E-key) x 1
- USB 3.1 x 4, USB 2.0 x 6
- PCIe [x4] x 1
- Low Profile
- 12V DC Power Input
- Support Intel® NVMe M.2 SSD



### Rear Panel I/O Ports

|             |                          |
|-------------|--------------------------|
| USB         | USB 3.1 Gen. 2 x 4       |
| Display I/O | DP x 2                   |
| Audio I/O   | Mic-in x 1, Line out x 1 |
| LAN I/O     | LAN (RJ45) port x 2      |
| Serial Port | —                        |
| PS/2 Port   | —                        |
| Others      | DC Jack                  |

### Internal I/O Connectors

|               |  |
|---------------|--|
| Storage       | SATA 6.0Gb/s x 4<br>M.2 M key (22 x 80 mm) x1 (Support Intel® NVMe M.2 SSD)  |
| USB           | 3 x USB 2.0 pin header support additional 6 USB ports  |
| Display I/O   | 40-pin LVDS connector x 1<br>40-pin eDP connector x 1<br>LCD backlight connector (inverter) x 1                              |
| Audio I/O     | Speaker for 2W/4Ω x 1<br>AAFP follow ASUS pin out x 1  |
| Serial Port   | Boxer header x 1 for COM (COM1: RS-232/422/485 supports 5V/12V/RI)   |
| PS/2 Port     | —  |
| Parallel Port | —  |
| DIO           | 8-bit x 1 (In/Out programmable)  |
| FAN           | 4-pin Chassis Fan connector x 1<br>4-pin CPU Fan connector x 1   |
| Power         | 12V DC Power jack x 1  |
| Others        | Front panel header x 1<br>Clear CMOS jumper x 1<br>AT/ATX select jumper x 1<br>Chassis Intrusion x 1<br>4-pin SATA power x 1 |

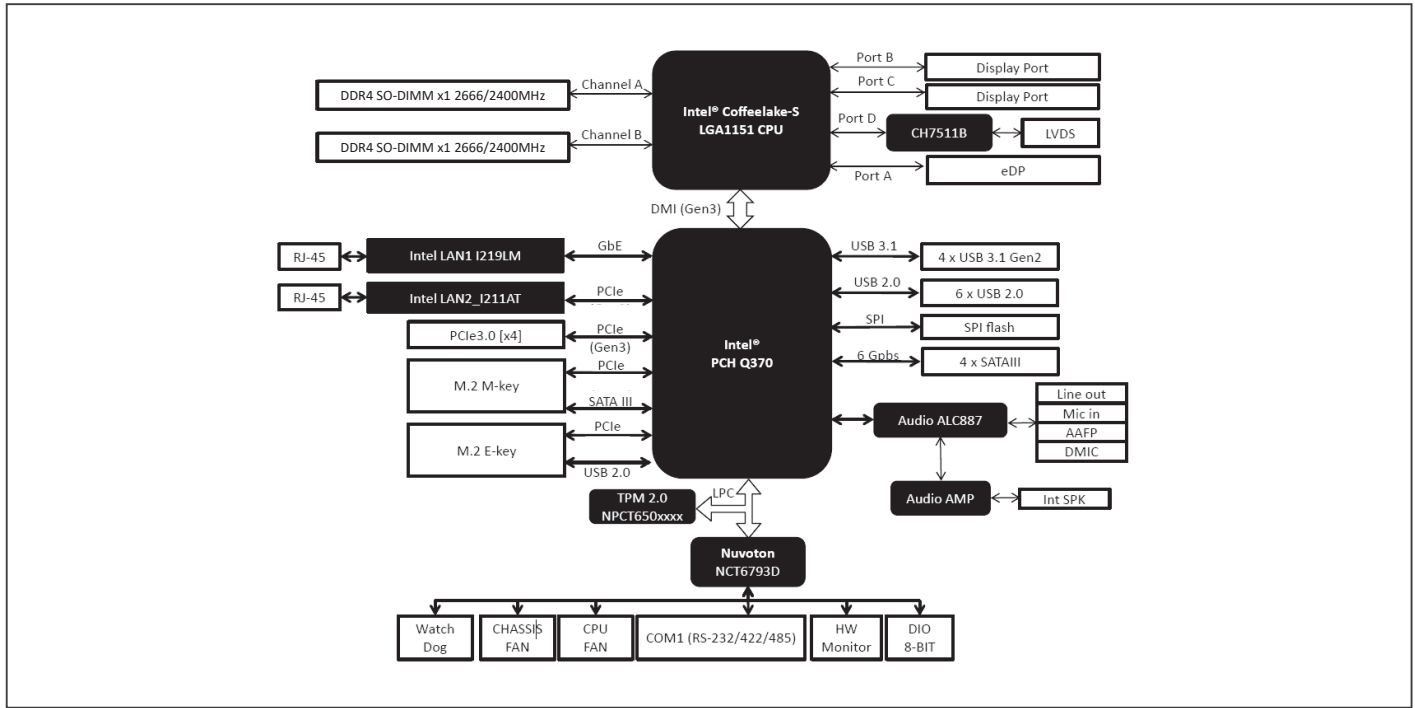
### OS

|            |                                      |
|------------|--------------------------------------|
| OS Support | Windows® 10 64 bit, Ubuntu 16.04 LTS |
|------------|--------------------------------------|

## Packing List

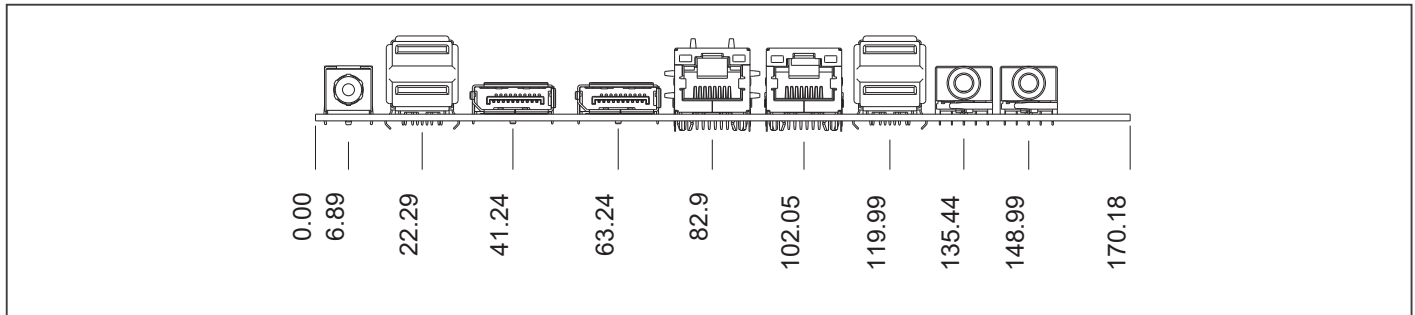
- SATA Cable
- SATA Power Cable
- I/O Shield
- Product CD
- MIX-Q370D1

## 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-Q370D1-A11 | Socket | SODIMM x 2 | Fan         | DP x 2, LVDS, eDP | SATA3 x 4, M.2(M-key) | Dual Channel 18/24 bit | GbE x 2 | USB2.0 x 6, USB3.1 x 4 | —      | 1              | PCIe3.0(x4) x 1, M.2(M-key) x 1, M.2(E-Key) x 1 | 12V DC | —   | 32°F ~140°F (0°C ~ 60°C) |

## Optional Accessories

| Part Number   | Description   |
|---------------|---|
| 1759200172    | (TF)CPU Cooler Fan, LGA 1156 socket, 4P, 12V, 2-Ball Bearing, Dynatron, K785, (2U cooler) |
| 175921156B    | (TF)CPU Cooler Fan, LGA 1156 socket, 12V, 4P, 2Ball (Tray), Dreamer, DSA-00273            |
| 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)   |
| 1700100491    | USB 2.0 Cable (2 x 5P, 490mm, p=2.00mm)   |
| 1709050201    | USB 2.0 Cable (5P, 220mm, p=2.00mm)   |
| 1701100206    | COM Cable (200MM, p=2.00mm)   |
| 1702150300    | SATA Power Cable (4P, 300MM p=2.54mm)   |
| 1255900846    | Adapter 12V/84W   |