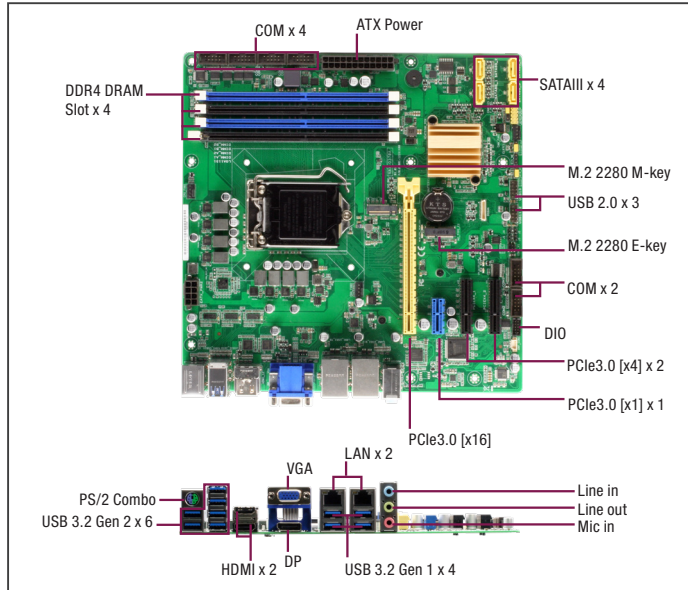


MAX-Q370A

Micro-ATX Industrial Motherboard with 8th/9th Generation Intel® Core™ Processor, DDR4 DRAM, Multiple Display Ports, Supports iAMT 12.0



Specifications

| System | |
|--------------------------|--|
| Processor | 8th/9th Generation Intel® (Coffee Lake-S/Coffee Lake-S Refresh) Core™ i9/ i7/ i5 /i3, Pentium™ 14nm LGA 1151 socket processor, max. TDP 8 Core 95W |
| Chipset | Intel® Q370 Express Chipset |
| Memory | DIMM x 4, DDR4 (2666/2400/2133 MHz, max. 128GB) Non-ECC, un-buffered memory Dual-channel memory architecture |
| I/O Chipset | NCT6793D+ F81216HD |
| Ethernet | Intel® PHY i219LM Gb LAN (supports Intel® AMT 12.0) x 1 Intel® i210AT Gb LAN x 1 RJ45 x 2 |
| Audio | Realtek® ALC897 6-Channel High Definition Audio CODEC |
| TPM | Nuvoton NPCT750 TPM2.0 onboard |
| Expansion Slots | PCIe 3.0[x16] Slot x 1 PCIe 3.0[x4] Slot (open edge) x 2 PCIe 3.0[x1] Slot (open edge) x 1 M.2 2230 E-key (PCIe/USB) x 1 M.2 2280 M-key (PCIex4/SATA3) x 1 |
| BIOS | 256Mbit Flash ROM, AMI BIOS |
| H/W Monitor | Temperature Monitor on CPU/System, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on CPU/Chassis |
| WatchDog Timer | 1~255 steps by software program |
| Smart Fan Control | CPU Fan/ Chassis Fan x 2 |
| Wake On LAN/ PXE | Yes (WOL / PXE) |
| Power State | S3, S4, S5 |
| Graphics | |
| Graphics Chipset | Intel® UHD Graphics |
| Graphics Multi Display | HDMI+VGA+DP, HDMI+HDMI+VGA, HDMI+HDMI+DP |
| VGA | Up to 1920 x 1200 @60Hz (via IT6516B) |
| DVI | — |
| HDMI | Up to 4096 x 2160 @ 24 Hz / 2560 x 1600 @ 60 Hz, with Digital Audio |
| Display Port | Up to 4096 x 2160 @ 24 Hz / 3840 x 2160 @ 60 Hz, with Digital Audio |
| LVDS | — |
| eDP | — |
| Backlight Control | — |
| Environment & Power & ME | |
| Battery | Lithium battery |
| Power Requirement | 24-pin ATX connector x 1, 8-pin (2x4) ATX 12V Power connector x 1 |
| 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 Class A |
| Form Factor | Micro-ATX Form Factor, 9.6"x9.6" (244 mm x 244 mm) |
| Weight | 1.76 lb (0.8 Kg) |
| MTBF (Hours) | 264,820 |

Features

- 8th/9th Generation Intel® Core™ LGA1151 Processor
- Supports Max. TDP 8 Core 95W.
- DDR4 2666/2400/2133 MHz, max. 128GB
- Three Independent Displays: HDMI x 2, VGA x 1, DP x 1
- Dual Intel® Gigabit Ethernet, i210AT x 1, i219LM x 1, i219LM Supports iAMT 12.0
- USB 3.2 Gen 2 ports x 6, USB 3.2 Gen 1 ports x 4, USB 2.0 ports x 3
- M.2 E-key (PCIe/USB) x 1, M.2 M-key (PCIex4/SATA3) x 1
- TPM Onboard



Rear Panel I/O Ports

| | |
|-------------|---|
| USB | USB 3.2 Gen 2 ports (10 Gbps) x 6, USB 3.2 Gen 1 ports (5 Gbps) x 4 |
| Display I/O | DP x 1, VGA x 1, HDMI x 2 |
| Audio I/O | Audio Jack x 3: Line-in, Mic-in, Line-out |
| LAN I/O | LAN (RJ45) ports x 2 |
| Serial Port | — |
| PS/2 Port | PS/2 combo Port (Keyboard & Mouse) x 1 |
| Others | — |

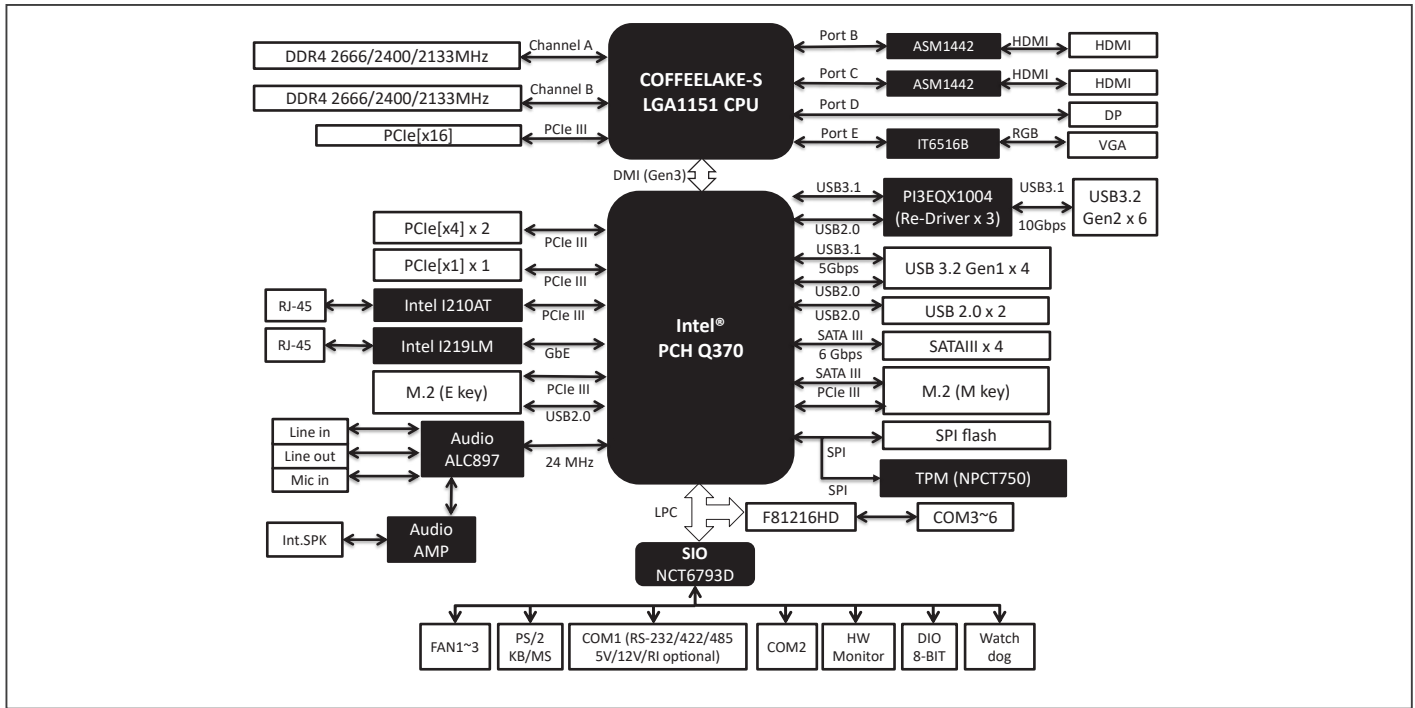
Internal I/O Connectors

| Storage | SATA3 (6.0Gb/s) ports x 4, support RAID 0/1/5/10 M.2 2280 M-key (PCIex4/SATA3) x 1 |
|---------------|---|
| USB | USB 2.0 headers support additional 3 USB ports (2x5PIN, p=2.54mm) |
| Display I/O | — |
| Audio I/O | Speaker for 2W@4Ω x 1 |
| Serial Port | RS-232 Box headers x 5 RS-232/422/485 Box header (COM1, Pin9 supports 5V/12V/RI optional) x 1 |
| PS/2 Port | — |
| Parallel Port | — |
| DIO | 8-bit Digital I/O interface (In/Out programmable) x 1 |
| FAN | CPU Fan connector (4-pin) x 1 Chassis Fan connector(s) (4-pin) x 2 |
| Power | — |
| Others | Chassis intrusion x 1 AT/ATX mode select jumper x 1 Front panel header x 1 Clear CMOS jumper x 1 |
| OS | |
| OS Support | Windows® 10 64bit, Linux Ubuntu 64bit (18.04.1/Kernel4.8.0) |

Packing List

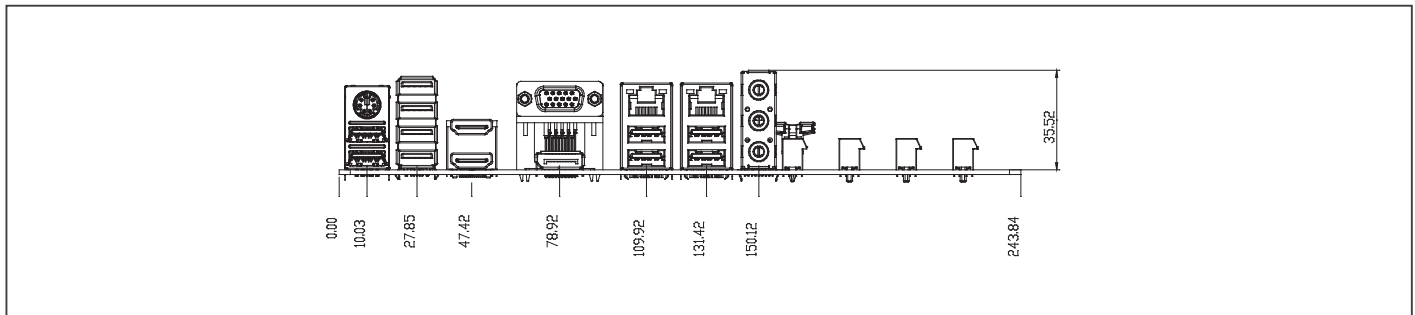
- 14001-00630100 SATA 6G Cable (7P, 180; 90, 500mm 2 in 1)
- 14001-00400100 COM Port Cable (9P, 260mm, p=2.54mm w/bracket)
- I/O Shield
- MAX-Q370A

Block Diagram



Dimension

Unit: mm



Ordering Information

| Part number | CPU | RAM | Fan/ Fanless | Display | LVDS | Storage | LAN | USB | RS-232 | RS- 232/422/485 | Expansion Slot | Power | TPM | Temp. |
|-------------------|-----------------|---------------------|-----------------|-------------------------------|------|---------------------------------|---------------|---|--------|--------------------|---|-------|---------|-----------------------------|
| MAX-Q370A-A20-210 | LGA 1151 socket | DDR4 2666/2400/2133 | Fan | HDMI x 2 VGA x 1 DP x 1 | — | SATA3 x 4 M.2 2280 M-key x 1 | Intel@GbE x 2 | USB 3.2 Gen 2 x 6 USB 3.2 Gen 1 x 4 USB 2.0 x 3 | 5 | 1 | PCIe[x16] x 1, PCIe[x4] x 2, PCIe[x1] x 1, M.2 2230 E-key x 1, M.2 2280 M-key x 1 | ATX | Onboard | 32°F ~140°F (0°C ~ 60°C) |

Optional Accessories

| Part Number | Description |
|-----------------|--|
| AP-FNTH1Q370010 | CPU Cooler (2-Ball Bearing, 2U, TDP Max. 100W) |
| 1709100330 | USB 2.0 cable (9P, 330MM, p=2.54mm, w/bracket) |
| 170910020K | USB 2.0 cable (9P, 200MM, p=2.54mm, w/o bracket) |
| 175921156B | CPU Cooler (2-Ball, Push-pin Type) |
| 1759200172 | CPU Cooler (2-Ball, Screw with Retention Plate) |