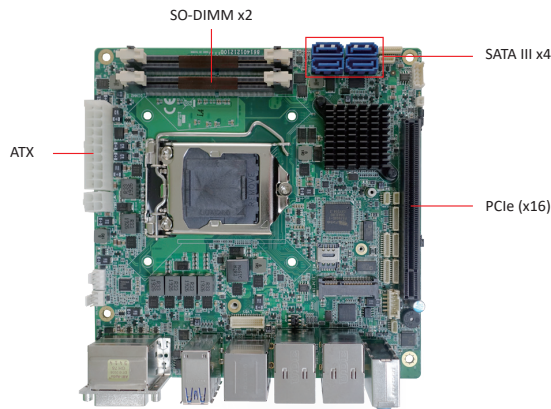


## AMIX-CML0

Intel® Q470E/H420E based Mini-ITX Motherboard supports  
Intel® 10th Gen Core™ i9/i7/i5/i3 /Pentium®/Celeron® Processors with  
HDMI/DP/DVI-I/LVDS(VGA/eDP), 4 SATAIII, 4 COM, 12USB, Dual Intel® GbE LAN.



### Key Features

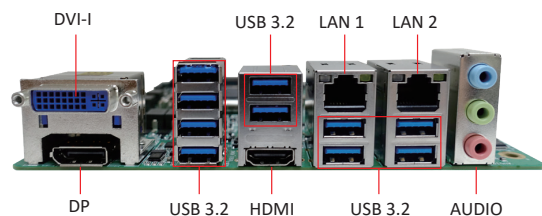
- Intel® 10th Gen Core™ i9/i7/i5/i3 /Pentium®/Celeron® series processor (LGA1200 socket) with Q470E/H420E chipset
- Two 260-pin SO-DIMM up to 32GB DDR4 2933MHz SDRAM
- Multi-Display: HDMI/DP/DVI-I/LVDS (Co-lay with VGA/eDP)
- Two Intel® Gigabit Ethernet ports
- 1 xPCIe (x16), 1 x Mini-PCIe, 2 x M.2 M-key 2280
- 4 x SATA III, 4 x COM, 10x USB 3.2 Gen. and 2 x USB 2.0
- Supports 4K/2K resolution display
- ATX Power support
- Supports Intel vPro, AMT technologies and TPM v2.0

### Product Specification

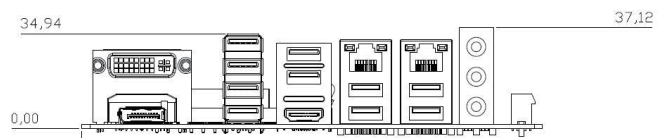
| System Processor/Chipset |                                                                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                | Intel® 10th Gen Core™ i9/i7/i5/i3/ Pentium®/ Celeron® (Comet Lake-S) processor (LGA1200 socket); (max TDP 65W)                                         |
| Chipset                  | Intel® Q470E or H420E                                                                                                                                  |
| BIOS                     | AMI SPI Flash ROM                                                                                                                                      |
| Memory                   |                                                                                                                                                        |
| Technology               | DDR4 SDRAM 2933MHz                                                                                                                                     |
| Max. capacity            | up to 64GB (32GB per DIMM)                                                                                                                             |
| Socket                   | 2 x 260-pin SO-DIMM                                                                                                                                    |
| Display                  |                                                                                                                                                        |
| Graphics                 | Intel® UHD Graphics 630                                                                                                                                |
| Display interface        | HDMI/DP/DVI-I/LVDS (VGA/eDP co-lay)                                                                                                                    |
| Multi-display            | Up to three independent displays<br>HDMI support DP signal for Dual 4K DP<br>VGA signal output by DVI connector                                        |
| Resolution               | DP: 4096 x 2304 @ 60Hz (max.)<br>HDMI: 4096 x 2160 @ 60Hz (max.)<br>LVDS: 1920 x 1200 @ 60Hz (max.)<br>DVI-I: 1920 x 1200@60Hz<br>VGA: 1920 x 1200@60H |
| Ethernet                 |                                                                                                                                                        |
| Interface                | 10/100/1000 Mbps                                                                                                                                       |
| Controller               | Intel® I219LM + i211 GbE                                                                                                                               |
| Connector                | 2 x RJ45                                                                                                                                               |
| Audio                    |                                                                                                                                                        |
| Interface                | Line-in, Line-out, Mic-in                                                                                                                              |
| CODEC                    | Realtek ALC662 HD                                                                                                                                      |
| Expansion Slot           |                                                                                                                                                        |
| PCI Expansion Slot       | 1 x PCIe (x16)                                                                                                                                         |
| Mini-PCIe                | 1 x Full-Size Mini-PCIe with SIM card supported                                                                                                        |
| M.2                      | 1 x M.2 M-key 2280 (NVME/SATA/PCIe)<br>1 x M.2 M-key 2280 (PCIe)                                                                                       |
| SATA                     |                                                                                                                                                        |
| Max. data transfer rate  | 6.0 Gb/s                                                                                                                                               |
| Port                     | 4 x SATA II                                                                                                                                            |
| I/O                      |                                                                                                                                                        |
| Audio                    | Line-out, Mic-in, Line-in (box-header)                                                                                                                 |
| USB                      | 10 x USB 3.2 Gen. 1(Rear I/O) (Q470E)<br>6 x USB 3.2 Gen. 1(Rear I/O) (H420E)<br>2 x USB 2.0 (box-header)                                              |
| COM                      | 3 x RS-232 (box-header)<br>1 x RS-232/422/485 (box-header)                                                                                             |
| HDMI/VGA/DVI/DP          | HDMI; DP; DVI-I; VGA; LVDS (eDP co-lay)                                                                                                                |
| DIO                      | 4-in/4-out                                                                                                                                             |
| Other                    |                                                                                                                                                        |
| TPM                      | TPMv2.0                                                                                                                                                |

| Power Requirement     |                                           |
|-----------------------|-------------------------------------------|
| Power connector       | ATX (20P+4P)                              |
| Power type            | ATX                                       |
| Power mode            | ATX                                       |
| Watchdog Timer        |                                           |
| Interval              | Programmable 1 ~ 255 sec/min              |
| Output                | System reset                              |
| Environment           |                                           |
| Operating temperature | 0°C ~ 60°C (32°F ~ 140°F) standard        |
| Storage temperature   | -20°C ~ 80°C (-4°F ~ 176°F)               |
| Relative humidity     | 0% ~ 95% (non-condensing)                 |
| Form Factor           |                                           |
| Dimensions (L x W)    | Mini-ITX<br>170mm x 170mm (6.69" x 6.69") |

### Rear I/O



### Dimensions



### Ordering Information

| Part Number    | Description                                                                         |
|----------------|-------------------------------------------------------------------------------------|
| AMIX-CML0-Q470 | Mini-ITX, Intel 10th Gen Q470E, HDMI/DP/DVI-I/ LVDS, 4SATA/ 4COM/12USB/2LAN, ATX20P |
| AMIX-CML0-H420 | Mini-ITX, Intel 10th Gen H420E, HDMI/DP/DVI-I/ LVDS, 4SATA/ 4COM/8USB/2LAN, ATX20P  |

### Optional Accessories

| Part Number  | Description               |
|--------------|---------------------------|
| TBD          | I/O Shied                 |
| TBD          | Cooler w/ FAN for LGA1200 |
| VK00000700A9 | SATA cable                |
| VK00002600A9 | SATA power cable          |

\*All specifications and photos are subject to change without prior notice

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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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