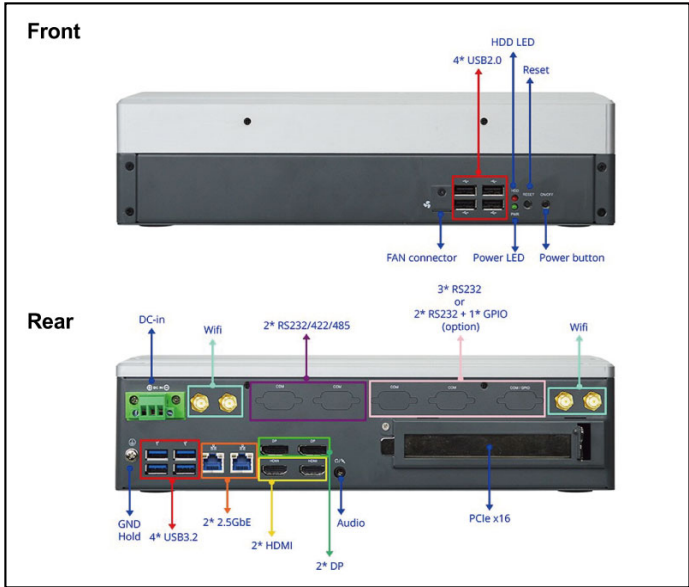


Fanless System, Intel® Q670E Chipset, supporting LGA 1700 socket for 12th/13th/14th Gen processors, with up to 96GB DDR5 memory



## Features

- Supports Intel® 12th/13th/14th Gen Processors: Compatible with Alder Lake-S and Raptor Lake-S LGA1700 Socket.
- Powered by Intel® Q670E Chipset: For high performance and system reliability
- DDR5 Memory: 2x 4800MHz/5600MHz SO-DIMM up to 96GB.
- Quad-Display Support: 2x HDMI and 2x DP ports
- Dual 2.5GbE Ethernet Ports: Faster networking and data transfers.
- Versatile Expansion Slots: 2x M-key, 1x E-key, 1x B-key for SSD, Wi-Fi, and cellular modules; 1x PCIe x16(Gen4)
- Comprehensive I/O: 2x RS232/422/485, 3x RS232, 4x USB 3.2 Gen 2, 4x USB 2.0.
- Power Supply: DC19V/120W adapter for reliable power delivery

## Packing List

| PART NUMBER                       | DESCRIPTION          | QTY |
|-----------------------------------|----------------------|-----|
| HB651I215                         | HB651I215 series     | 1   |
| HCS650MWM01B-F                    | WALL MOUNT KIT       | 1   |
| —                                 | Adapter DC19V/120W   | 1   |
| Change according to shipping area | Power Cord           | 1   |
| LCSCHBFDXXX-F                     | Screw Pack           | 1   |
| LCSCHBJC3XX-F                     | Screw Pack           | 1   |
| J2PCI16RISER1AR10                 | PCI-E X16 RISER CARD | 1   |
| G01-SA715S7P422F                  | SATA 22P Cable       | 1   |
| G01-COM-H2M300-F                  | COM Cable (5th)      | 1   |

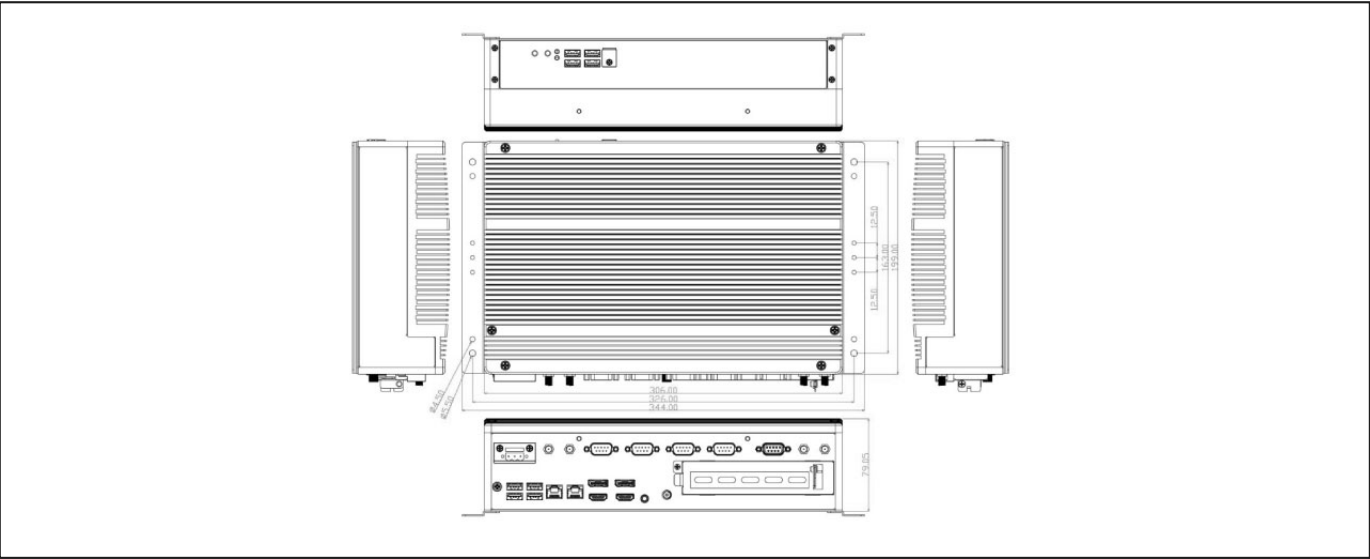
## Optional Accessory

| PART NUMBER      | DESCRIPTION                          | QTY |
|------------------|--------------------------------------|-----|
| HCFAN65X-DC1225  | DC1225 FAN Expansion Module (option) | 1   |
| G10-WIFIXB560-01 | WIFI KIT                             | 1   |

## Specifications

| SYSTEM                      |                                                                                                                                                                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MB FORM FACTOR              | Performance                                                                                                                                                                                                                         |
| CPU                         | Intel® LGA1700 12/13/14th Gen Socket Processor (Formerly Alder Lake-S, TDP 35W)<br>Intel® LGA1700 12/13/14th Gen Socket Processor (Formerly Alder Lake-S, TDP 65W)                                                                  |
| CHIPSET                     | Intel® Q670E                                                                                                                                                                                                                        |
| MEMORY                      | 2 x DDR5 4800MHz SO-DIMM, up to 96GB<br>2 x DDR5 5600MHz SO-DIMM, up to 64GB (Intel® 13th/14th Gen CPU)                                                                                                                             |
| BIOS                        | AMI Flash ROM                                                                                                                                                                                                                       |
| WAKE ON LAN                 | Yes                                                                                                                                                                                                                                 |
| WATCHDOG TIMER              | 255 Levels                                                                                                                                                                                                                          |
| SECURITY                    | TPM2.0                                                                                                                                                                                                                              |
| RTC BATTERY                 | Lithium Battery                                                                                                                                                                                                                     |
| OS SUPPORT                  | Windows® 11 (64bit)<br>Linux                                                                                                                                                                                                        |
| POWER                       |                                                                                                                                                                                                                                     |
| POWER REQUIREMENT           | 120W Adapter: AC90~240V, DC19V/6.32A<br>DC-in 9~36V                                                                                                                                                                                 |
| POWER ON MODE               | AT / ATX (Default) Mode                                                                                                                                                                                                             |
| DISPLAY                     |                                                                                                                                                                                                                                     |
| GPU                         | Intel® HD Graphics, shared memory                                                                                                                                                                                                   |
| DP                          | 2 x DP1.4a (Max Resolution: 4096 x 2304@60Hz)                                                                                                                                                                                       |
| HDMI®                       | 2 x HDMI 2.0b (Max Resolution: 4096 x 2160@60Hz)                                                                                                                                                                                    |
| MULTIPLE DISPLAY            | Support 4 Displays                                                                                                                                                                                                                  |
| AUDIO                       |                                                                                                                                                                                                                                     |
| CODEC                       | Realtek ALC888S                                                                                                                                                                                                                     |
| AMPLIFIER                   | 3W                                                                                                                                                                                                                                  |
| LAN                         |                                                                                                                                                                                                                                     |
| ETHERNET                    | 1 x RJ45 for Intel® I225-V 2.5GbE<br>1 x RJ45 for Intel® I225-LM 2.5GbE                                                                                                                                                             |
| SYSTEM I/O                  |                                                                                                                                                                                                                                     |
| REAR PANEL I/O              | 4 x USB3.2 (Gen.2)<br>2 x LAN<br>2 x HDMI<br>2 x DP<br>1 x Audio (Line out, MIC Combo)<br>1 x DC-in (3 PIN Industrial Connector)<br>2 x RS-232/422/485<br>3 x RS-232                                                                |
| FRONT PANEL I/O             | 1 x Power Button<br>1 x Reset Button<br>1 x Power LED<br>1 x HDD LED<br>4 x USB 2.0<br>1 x FAN link con                                                                                                                             |
| STORAGE                     |                                                                                                                                                                                                                                     |
| SATA                        | 1 x 2.5" SATA 6Gb/s Internal Drive Bay (Only Support HDD Hight < 10mm)                                                                                                                                                              |
| EXPANSION                   |                                                                                                                                                                                                                                     |
| M.2                         | 1 x M-Key 2242 (PCIe Gen.4 x4/SATA interface) support NVMe<br>1 x M-key 2280 (PCIe Gen.3 x4/SATA interface) support NVMe<br>1 x E-Key 2230 (PCIe x1/USB 2.0) Support CNVio<br>1 x B-key 3042/3052 (USB3.1/USB2.0/PCIe x1 interface) |
| PCIe                        | 1 x PCI Express x16 (Gen.4)<br>PCI Express x16 is recommended for IO control card expansion. High-power cards in a fanless case may affect performance, so they aren't recommended                                                  |
| SIM                         | 1 x SIM Card Slot                                                                                                                                                                                                                   |
| OTHERS                      |                                                                                                                                                                                                                                     |
| OTHER                       | 1 x GPIO (8 Bit)                                                                                                                                                                                                                    |
| MECHANICAL                  |                                                                                                                                                                                                                                     |
| DIMENSIONS (W x D x H)      | 306.0 (W) x 199.0 (D) x 79.0 (H) mm                                                                                                                                                                                                 |
| GROSS WEIGHT                | 6.5 KG                                                                                                                                                                                                                              |
| NET WEIGHT                  | 5.5 KG                                                                                                                                                                                                                              |
| ENVIRONMENT & CERTIFICATION |                                                                                                                                                                                                                                     |
| SHOCK                       | 15G, 11ms duration                                                                                                                                                                                                                  |
| VIBRATION                   | 1 Grms/ 5~ 500Hz/ Operation                                                                                                                                                                                                         |
| OPERATING TEMPERATURE       | -20°C ~ 60°C (35W CPU), -20°C ~ 50°C (65W CPU)                                                                                                                                                                                      |
| STORAGE TEMPERATURE         | -40°C ~ 85°C (-40°F ~ 185°F)                                                                                                                                                                                                        |
| OPERATING HUMIDITY          | 10 ~ 95% @ 40°C, Non-condensing                                                                                                                                                                                                     |
| CERTIFICATION               | CE/FCC Class A<br>LVD                                                                                                                                                                                                               |
| ESG DECLARATION             | EU RoHS<br>China RoHS<br>ErP                                                                                                                                                                                                        |

Dimension      Unit: mm



Ordering Information

| PART NUMBER | HB651I215-Q670-B-A1 | HB651I215I-Q670-BA1 | HB651I215-Q670-T-A1 | HB651I215I-Q670-TA1 |
|-------------|---------------------|---------------------|---------------------|---------------------|
| SECURITY    |                     |                     | TPM2.0 (Optional)   | TPM2.0 (Optional)   |
| MINI PCI-E  |                     | Wifi card           |                     | Wifi card           |