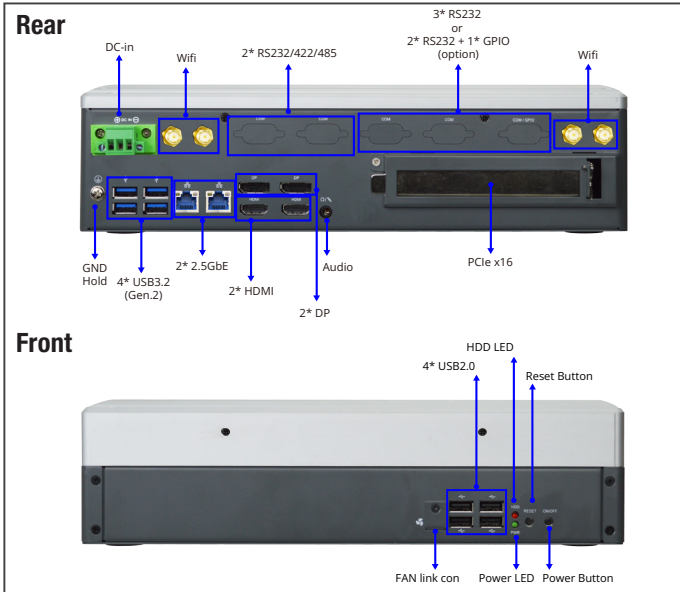


HB651I215

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, 4x RS232, 4x USB 3.2 Gen 2, 4x USB 2.0**
- **Power Supply: DC19V/120W adapter for reliable power delivery**

Packing List

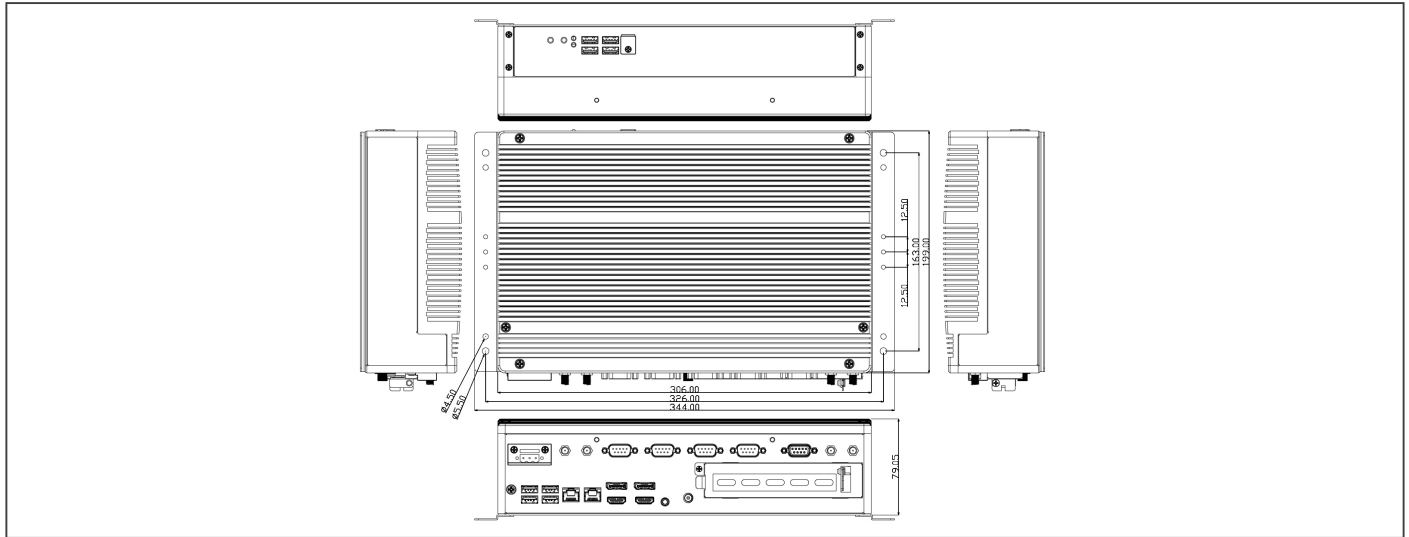
Part Number	Description	QTY per Board
HCS650MWM01B-F	HB651I215 series 1	1
	WALL MOUNT KITS 1	1
	Adapter DC19V/120W	1
Change according to shipping area	Power Cord	1
LCSCHBFDXXX-F	Screw Pack	1
LCSCHBJC3XX-F	Screw Pack	1
J2PCIE16RISER1AR10	PCI-E X16 RISER CARD	1
J05-ANT-GX57245-F	Antenna 2G4/5G 2.8dBi (WiFi only)	2
G01-SA715S7P422F	SATA 22P Cable	1
HCFAN65X-DC1225	DC1225 FAN Expansion Module (option)	1

Specifications

SYSTEM	
MB FORM FACTOR	Mini-ITX
CPU	Intel® LGA1700 Socket, 12/13/14th gen processors (Max. TDP 35W) Intel® LGA1700 Socket, 12/13/14th gen processors (Max. TDP 65W)
CHIPSET	Intel® Q670E
MEMORY	2 x Intel® 12th/13th/14th CPU supports DDR5 4800MHz Dual Channel SO-DIMM, up to 96GB max 2 x Intel® 13th/14th CPU supports DDR5 5600MHz Dual Channel SO-DIMM, up to 64GB max Actual memory support depends on the specific CPU and model
BIOS	AMI Flash ROM
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM2.0
RTC BATTERY	Lithium Battery
OS SUPPORT	Windows® 11 (64bit) Linux
POWER	
POWER REQUIREMENT	120W Adapter: AC90~240V, DC19V/6.32A MB : DC9~36V input
POWER ON MODE	AT / ATX (Default) Mode
DISPLAY	
GPU	Intel® HD Graphics, shared memory
DP	2 x DP1.4a (Max Resolution: 4096×2304@60Hz)
HDMI	1 x HDMI (Max Resolution: 1920×1080@60Hz)
MULTIPLE DISPLAY	Support 4 Displays
AUDIO	
CODEC	Realtek ALC888S
AMPLIFIER	3W
LAN	
ETHERNET	1 x RJ45 for Intel® I225-V 2.5GbE 1 x RJ45 for Intel® I225-LM 2.5GbE
SYSTEM I/O	
REAR PANEL I/O	4 x USB3.2 (Gen.2) 2 x LAN 2 x HDMI 2 x DP 1 x Audio (Line out, MIC Combo) 1 x DC-in (3 PIN Industrial Connector) 2 x RS-232/422/485 3 x RS-232
FRONT PANEL I/O	1 x Power Button 1 x Reset Button 1 x Power LED 1 x HDD LED 4 x USB 2.0 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 1 x M-key 2280 (PCIe Gen.3 x4/SATA interface) support NVMe 1 x E-Key 2230 (PCIe x1/USB 2.0) Support CNVio 1 x B-key 3042/3052 (USB3.1/USB2.0/PCIe x1 interface)
PCI-E	1 x PCI Express x16 (Gen.4) 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	
SIM	1 x GPIO (8 Bit)
MECHANICAL	
DIMENSIONS (W x H x D)	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

Dimension

Unit: mm



Ordering Information

Part Number	HB651I215-Q670-B	HB651I215-Q670-B	HB651I215-Q670-T	HB651I215-Q670-T
CPU	Intel® Processor Q670E	Intel® Processor Q670E	Intel® Processor Q670E	Intel® Processor Q670E
MEMORY	2 x DDR5 S0-DIMM, up to 96GB	2 x DDR5 S0-DIMM, up to 96GB	2 x DDR5 S0-DIMM, up to 96GB	2 x DDR5 S0-DIMM, up to 96GB
SECURITY	-	-	TPM2.0 (Optional)	TPM2.0 (Optional)
GPU	Intel® HD Graphics, shared memory	Intel® HD Graphics, shared memory	Intel® HD Graphics, shared memory	Intel® HD Graphics, shared memory
DP	2 x DP	2 x DP	2 x DP	2 x DP
HDMI	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI
MULTIPLE DISPLAY	Support 4 Displays	Support 4 Displays	Support 4 Displays	Support 4 Displays
ETHERNET	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE
I/O	4 x USB 3.2 Gen 2	4 x USB 3.2 Gen 2	4 x USB 3.2 Gen 2	4 x USB 3.2 Gen 2
I/O	2 x LAN	2 x LAN	2 x LAN	2 x LAN
I/O	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI
I/O	2 x DP	2 x DP	2 x DP	2 x DP
I/O	1 x Audio (Line-out, MIC Combo)	1 x Audio (Line-out, MIC Combo)	1 x Audio (Line-out, MIC Combo)	1 x Audio (Line-out, MIC Combo)
I/O	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485
I/O	3 x RS-232	3 x RS-232	3 x RS-232	3 x RS-232
I/O	1 x Power Button	1 x Power Button	1 x Power Button	1 x Power Button
I/O	1x Reset	1x Reset	1x Reset	1x Reset
I/O	1 x Power LED	1 x Power LED	1 x Power LED	1 x Power LED
I/O	1 x HDD LED	1 x HDD LED	1 x HDD LED	1 x HDD LED
I/O	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0
I/O	1 x FAN link con	1 x FAN link con	1 x FAN link con	1 x FAN link con
SATA	1 x SATA3	1 x SATA3	1 x SATA3	1 x SATA3
MINI PCI-E	-	WiFi card	-	WiFi card
M.2	1 x M-Key 2242	1 x M-Key 2242	1 x M-Key 2242	1 x M-Key 2242
M.2	1 x M-Key 2280	1 x M-Key 2280	1 x M-Key 2280	1 x M-Key 2280
M.2	1 x E-Key 2230	1 x E-Key 2230	1 x E-Key 2230	1 x E-Key 2230
M.2	1 x B-Key 3042/3052	1 x B-Key 3042/3052	1 x B-Key 3042/3052	1 x B-Key 3042/3052
PCI-E	1 x PCIe x16	1 x PCIe x16	1 x PCIe x16	1 x PCIe x16