

HUK-CR680

COM-HPC Client size C Module

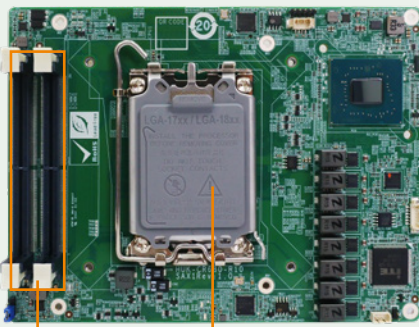
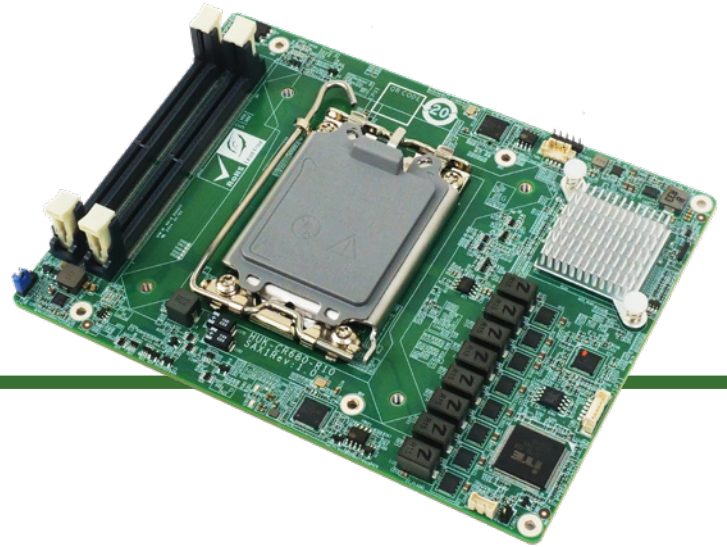
- Supports LGA1700 Intel® 12th/13th/14th Desktop CPU (TDP up to 65W)
- Dual-channel DDR5 up to 4400MHz
- Support DisplayPort 1.2a, HDMI & eDP
- Support PCIe Gen5/Gen4 /Gen3 signals



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HUK-CR680

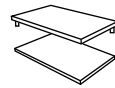
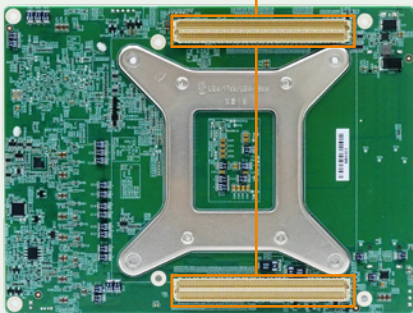
COM-HPC Client size C Module, supports LGA1700 Intel® 12th/13th/14th Generation Core™ i9/i7/i5/i3, Pentium® and Celeron® processor, quadruple independent display, Dual 2.5 GbE, PCIe Gen 5, SATAIII, USB 3.2, RoHS



2 x DDR5 4400 SO-DIMM sockets (up to 96GB)

Intel® 12th/13th/14th LGA1700 Desktop CPU

COM-HPC® Interconnects (Connected to the baseboard)



Compliant with the new COM-HPC specification

Adopting the new COM-HPC computer module. Further performance improvements over COM Express to meet the high-end needs of the industrial edge computing market.



Support 12th/13th/14th Gen Intel® Core™ CPU

Support LGA1700 socket 12th/13th/14th generation Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Intel® Core™ i9/i7/i5/i3/Pentium/Celeron® Processor (up to 65W TDP CPU), up to 16cores/24threads for outstanding Multi Threaded performance.



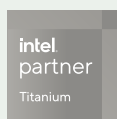
Support Intel® i226-V/i226-LM 2.5GbE Controller

With PCIe 2.5 GbE Intel i226-V/i226-LM signal to baseboard, achieving up to 2.5GbE network transmission rate.

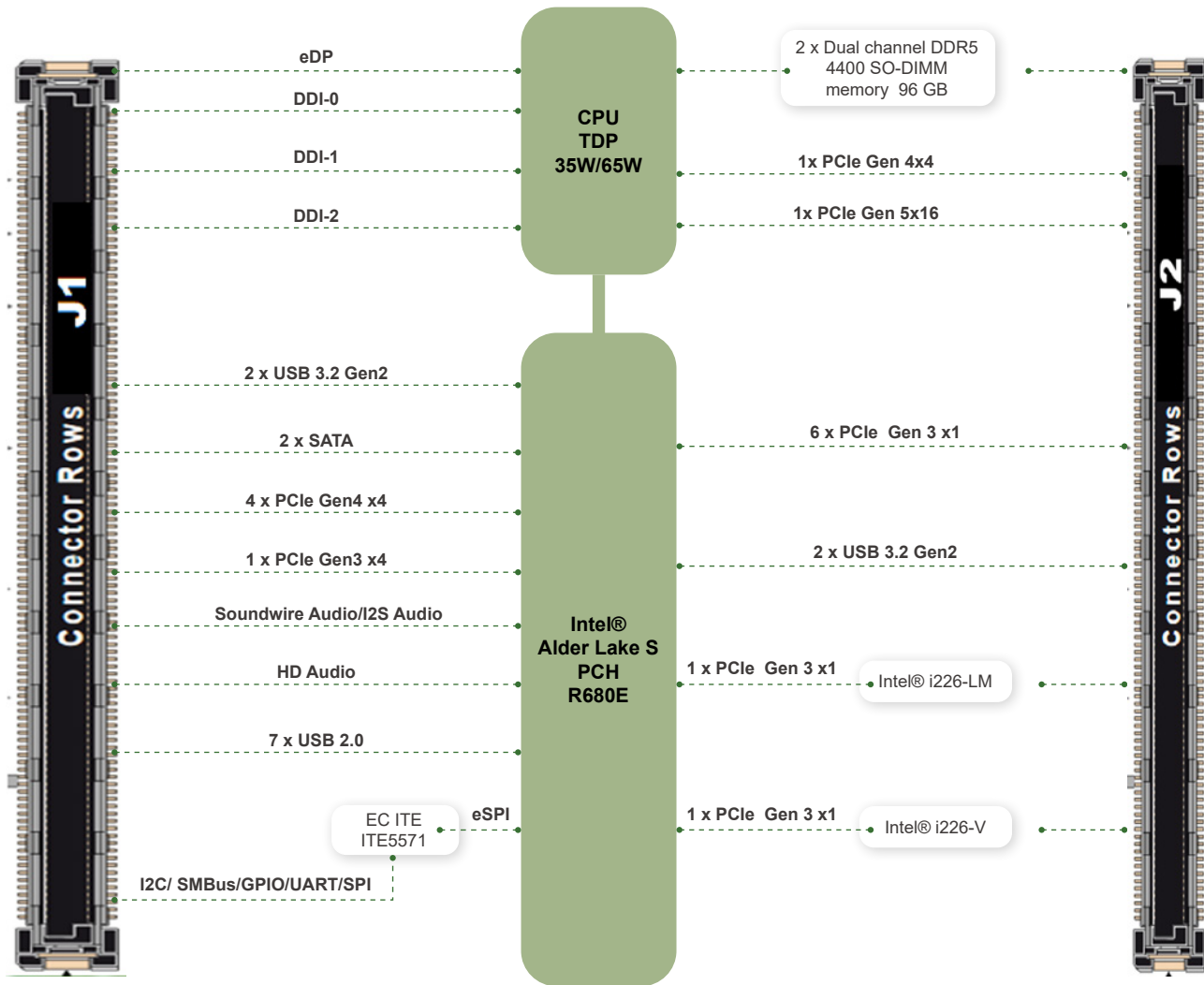


Supports rich PCIe expansion

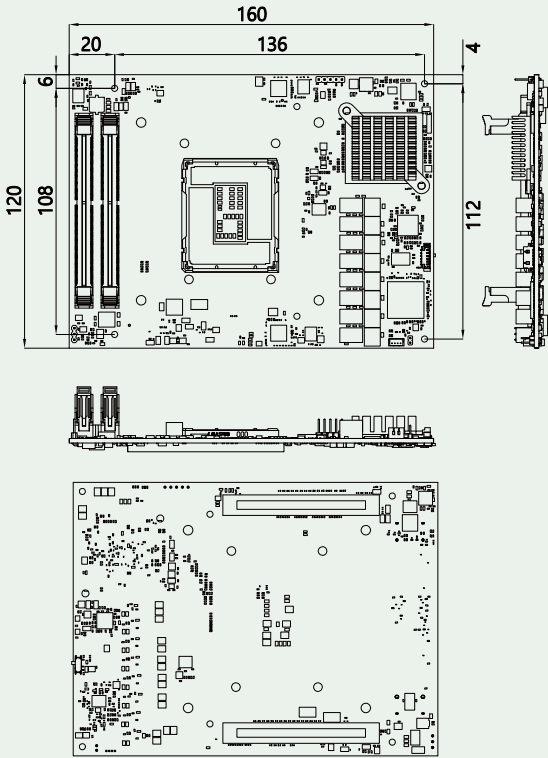
Adequate PCIe signals to the backplane, including 1 x PCIe Gen5 x16, 4 x PCIe Gen4 x4, 1 x PCIe Gen3 x4 and 6 x PCIe Gen3 x1.



Block Diagram



Dimensions



Specifications

Model	HUK-R680
Form factor	COM-HPC
CPU	Intel® Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh LGA1700 Desktop CPU (TDP up to 65W)
Chipsets	R680E
BIOS	UEFI BIOS
Graphics Engine	Intel® Gen12 UHD Graphics
Memory	2 x 262pin DDR5 5600 SO-DIMM sockets (up to 96GB)
Display	Quadruple independent display signals to baseboard 3 x DDI 1 x eDP
LAN	1 x PCIe 2.5 GbE with Intel i226-V signal to baseboard 1 x PCIe 2.5 GbE with Intel i226-LM signal to baseboard
I/O Interface	USB and UART signals to the baseboard 8 x USB 2.0 4 x USB 3.2 Gen2 2 x UART
Storage	2 x SATA signals to the baseboard
Expansion	PCIe signals to the baseboard 1 x PCIe Gen5 x16 4 x PCIe Gen4 x4 1 x PCIe Gen3 x4 6 x PCIe Gen3 x1
Front panel	Front panel signal to baseboard
Audio	1 x HD Audio signal to baseboard 1 x Soundwire Audio/I2S Audio signal to baseboard
eSPI	1 x eSPI signal to baseboard
DMIC	2 x DMIC signal to baseboard
SMBus	1 x 4-pin wafer signal to baseboard
I ² C	1 x 4-pin wafer signal to baseboard
GPIO	12-bit GPIO signal to baseboard
TPM	Onboard TPM2.0
Power Input	ATX 12V Power Supply
Size	160 x 120mm
Operating Temperature	-10°C–60°C
Operating Humidity	5%–95% (non-condensing)
Certification	CE/FCC compliant

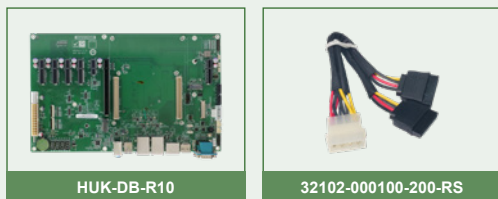
Packing List

- 1 x HUK-CR680 single board computer
- 1 x QIG

Ordering Informaiton

HUK-CR680-R10	COM-HPC Client size C Module, supports LGA1700 Intel® 12th/13th/14th Generation Core™ i9/i7/i5/i3, Pentium® and Celeron® processo, quadruple independent display, Dual 2.5 GbE, PCIe Gen 5, SATAIII, USB 3.2, RoHS
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Optional Accessories

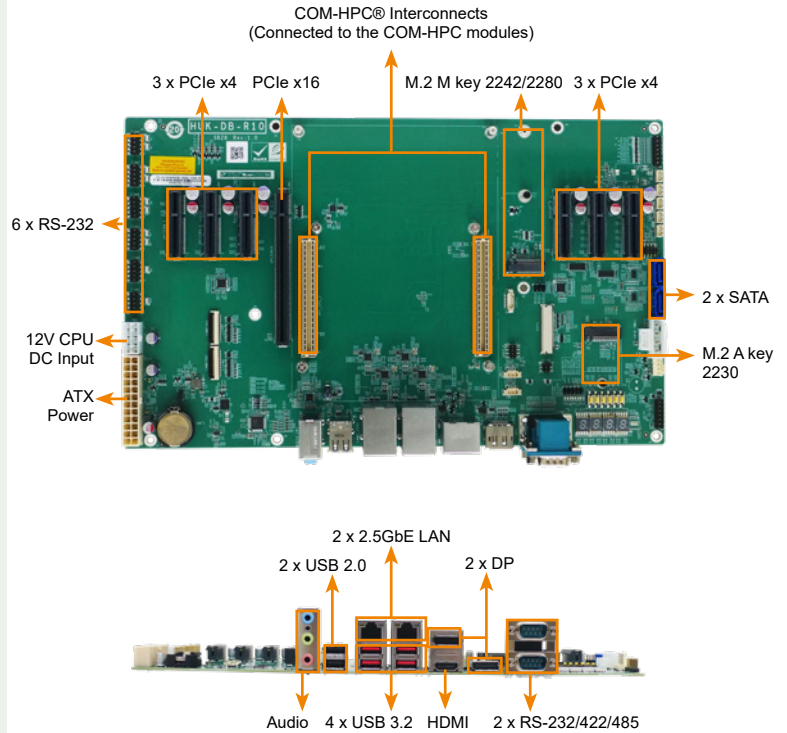
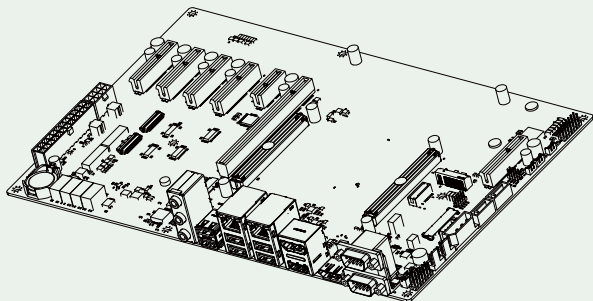
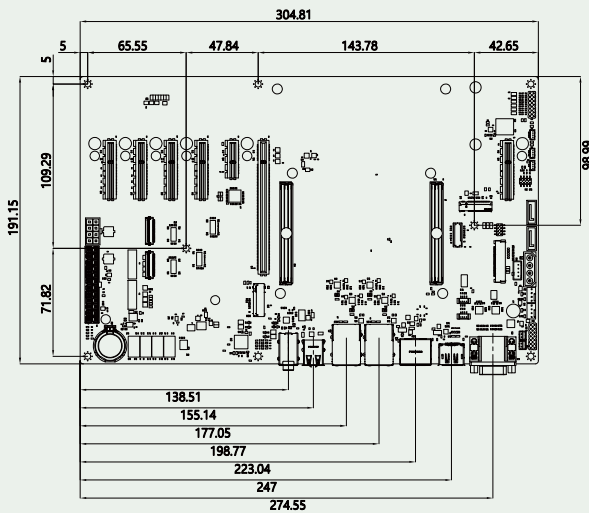


Optional Accessories

HUK-DB-R10	COM-HPC BACKPLANE
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
19100-000355-00-RS	High-performance LGA1700 cooler: 65W (72 x 70 x 45.8 mm)

HUK-DB

Dimensions



Specifications

Model	HUK-DB	
Compatible Models	COM-HPC Size A Module (95 x 120mm), B Module (120 x 120mm) and C Module (120 x 160mm)	
Display	1 x eDP 1 x HDMI 1.4 up to 4096 x 2304 @30Hz 2 x DP 1.2 up to 4096 x 2304 @60Hz	
Ethernet	2 x RJ45 (2.5GbE)	
External I/O	6 x RS-232 1 x General Purpose SPI Port (2 x4 pin, P=2.0) 1 x 12-bit DIO (2*7 pin, P=2.54) 2 x SATA 6Gb/s	
Internal I/O	1 x General Purpose SPI Port (2 x4 pin, P=2.0) 1 x 12-bit DIO (2*7 pin, P=2.54) 2 x SATA 6Gb/s	
Expansion	1 x PCIe Gen5 x16 4 x PCIe Gen4 x4 1 x PCIe Gen3 x4	1 x PCIe Gen3 x4 (x2signal) 1 x M.2 M Key 2242/2280 (PCIe Gen3 x2) 1 x M.2 A Key 2230 (USB2.0&PCIe Gen3 x2)
MIPI	2 X MIPI CSI CONN	
AUDIO	1 x Realtek ALC888S HD codec / 1 x I2S Audio (Line-in, Line-out, Mic) 1 x Soundwire Audio (2 x 4 pin header) 2 x DMIC connector	
Front Panel	1 x Front_Panel (2*7 pin) (Power LED, HDD LED, Speaker (Buzzer), Power Button, Reset Button)	
I2C	2 x 4-pin wafer	
SMBus	1 x 4-pin wafer	
FAN connector	1 x System fan connector (1x4 pin)	
Power Supply	12V DC Input	
Temperature	-10°C ~ 60°C	
Humidity	5% ~95 non-condensing	
Dimensions	315mm x 190mm	
Certification	CE/FCC compliant	