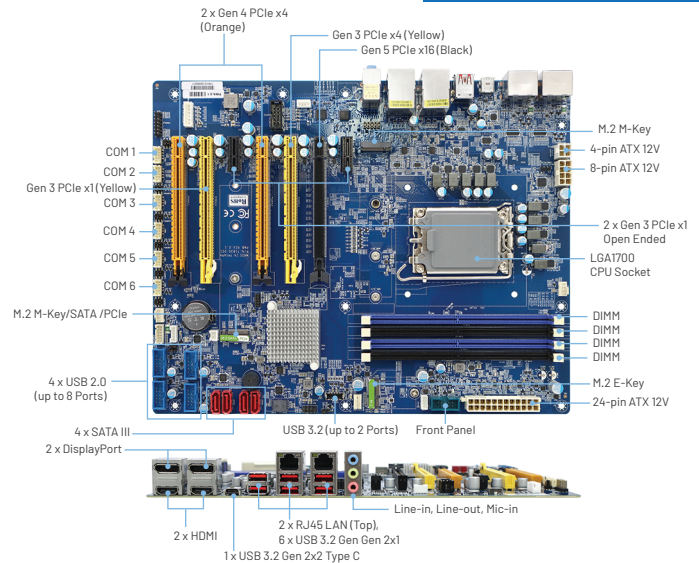


Features

- LGA1700 Socket supports Intel® Alder Lake Core™ i9, Core™ i7, Core™ i5, Core™ i3, Pentium, Celeron Processor
- Intel® Integrated Iris Xe Graphic (CPU Dependent)
- Intel® R680E PCH
- 4 x DIMM slots support Dual Channel DDR5 4800MHz up to 128GB with ECC support
- 2 x Intel® I255-LM 2.5GbE
- 1 x Gen 5 PCIe x16, 2 x Gen 4 PCIe x4, 1 x Gen 3 PCIe x4, 1 x Gen3 PCIe x1, 2 x Gen 3 PCIe x1 Open End
- 2 x M.2 M-Key NVMe, 1 x M.2 E-Key supports CNVi
- TPM 2.0, Intel® AMT 16
- x8 Gen4 DMI
- Supports 4 Independent Display: 2 x HDMI, 2 x DP
- 6 x COM, 4 x SATA III
- 8 x USB 3.2 Gen 2, 8 x USB 2.0, 1 x USB 3.2 Gen 2x2 Type-C
- I²C, SMBus, PS/2, LPT, 8-bit GPIO
- Supports Win 10, Win 11, Linux

Specifications

System	
CPU	LGA1700 socket supports Intel® Alder Lake Core i9, Core i7, Core i5, Core i3, Pentium, Celeron processor up to 16 Cores 24 Threads Hybrid
Chipset	Intel® R680E PCH
System Memory	4 x DIMM slots support Dual Channel DDR5 4800 MHz up to 128GB with ECC support
BIOS	AMI® 256Mb SPI BIOS
DMI	x8 Gen4 DMI
Expansion	1 x Gen 5 PCIe x16 (x16 Physical Black) 2 x Gen 4 PCIe x4 (x16 Physical Orange) 1 x Gen 3 PCIe x4 (x16 Physical Yellow) 1 x Gen 3 PCIe x1 (x16 Physical Yellow) 2 x Gen 3 PCIe x1 Open Ended 1 x M.2 M-Key 2242/2280/22110 NVMe (PCIe x4 + SATA III) 1 x M.2 M-Key 2242/2280/22110 NVMe (PCIe x4 Only) 1 x M.2 E-Key 2230 with CNVi Support (PCIe x1 + USB 2.0)
Watchdog Timer	Reset: 1 sec. ~ 255min. and 1sec. or 1min./step
H/W Status Monitor	Monitoring System Temperature, Voltage, with Auto Throttling Control
TPM	Infineon® TPM 2.0
Intel® AMT	Intel® AMT 16
Supported OS	Windows 10, Windows 11, Linux
Display	
Chipset	Intel® Integrated Iris Xe Graphic (CPU Dependent)
Interface	2 x HDMI 2.0b 4K@60Hz 2 x Dual Mode DisplayPort 1.4a 4K@60Hz
Multi-Display	Supports 4 Independent Display
Audio	
Audio Codec	Realtek HD Audio Codec
Amplifier	3W Per Channel Amplifier



Ethernet

LAN 1	Intel® I255-LM 2.5 Gigabit Ethernet
LAN 2	Intel® I255-LM 2.5 Gigabit Ethernet

External I/O

Display	2 x HDMI 2 x DisplayPort
USB	6 x USB 3.2 Gen 2x1 1 x USB 3.2 Gen 2x2 Type-C
LAN	2 x RJ45
Audio	Line-in, Line-out, Mic-in

Internal I/O

USB	4 x USB 2.0 Headers (8 Ports) 1 x USB 3.2 Gen 2 (2 Ports)
Thunderbolt	1 x Thunderbolt header for optional TBT Add-on Card
COM	5 x RS-232 Headers 1 x RS-232/422/485 Header
SATA	4 x SATA III
PS/2	1 x PS/2
I ² C	1 x I ² C Header
SMBus	1 x SMBus Header
SPI	1 x SPI Header
Other	Front Audio, Front Panel, Amplifier, 8-bit GPIO

Mechanical & Environment

Power Type	AT/ATX
Power Connector	1 x 24-pin ATX 12V Connector 1 x 8-pin ATX 12V Connector 1 x 4-pin ATX 12V Connector
Operating Temp.	0 ~ 60°C (32 ~ 140°F)
Storage Temp.	-20 ~ 80°C (-4 ~ 176°F)
Op Humidity	5% to 90% non-condensing
Certification Information	CE, FCC Class B, UL, RoHS Compliant
Dimensions	12" x 9.6" (305 x 244mm)
Weight	1.85 lbs

Ordering Info

BC680R	Intel® R680E ATX Motherboard supports 12th Gen Intel® Alder Lake Processor
Accessory Included	1 x I/O Shield

* All product specifications and images are subject to change without notice. Last update: 2022/01/07



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