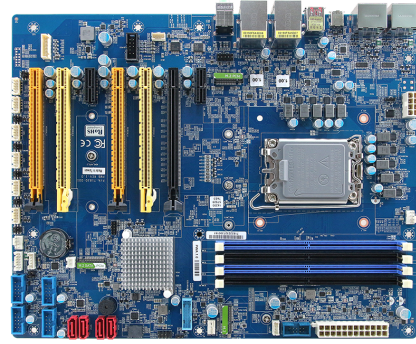


# BC680R

**12th/13th Gen. Intel® Core™ i9/i7/i5/i3 Processors, LGA 1700 Socket, ATX Motherboard With Intel® R680E**



## Product Features

- LGA 1700 Socket supports 12/13th Generation Intel® Core™ processors, Intel® R680E Chipset
- 2 x HDMI 2.0b and 2 x DP 1.4a, supporting 4K@60Hz.
- 2 x Intel® I225-LM 2.5G Gigabit Controller
- 1 x M.2 M-Key 2242/2280/22110 NVMe, 1 x M.2 M-Key 2242/2280/22110 NVMe, 1 x M.2 E-Key 2230 with CNVi Support
- ATX Power
- 4 x 288-Pin DDR5 4400MHz Dual Channel U-DIMM Socket, up to 128GB.
- 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.
- 1 x USB 3.2 Gen 2x2 Type-C, 6 x USB 3.2 Gen 2x, 8x USB 2.0 (Headers), 2 x USB 3.2 Gen 2 (Headers)
- 6 x COM

## Specification

System Information	
Processor	LGA 1700 Socket Supports 12/13th Generation Intel® Core™ i9/i7/i5/i3 Processors (Max. TDP at 65W)
Platform Controller Hub	Intel® R680E Chipset
System Memory	4 x 288-Pin DDR5 4400MHz Dual Channel U-DIMM Socket Supports Up to 128GB (ECC Memory Support by CPU)
I/O Chipset	nuvoton NCT6126D
Watchdog Timer	H/W Reset, 5~255 Seconds/5~255 Minutes
BIOS	AMI uEFI BIOS 256Mbit SPI Flash ROM
H/W Status Monitor	CPU Temperature Monitoring Voltage Monitoring CPU Fan Speed Control
TPM	Onboard infineon TPM 2.0 SLB9670VQ2.0
Board	ATX

## Expansion

<b>Expansion</b>	1 x Gen5 PCIe x16, 2 x Gen4 PCIe x4, 1 x Gen3 PCIe x4, 1 x Gen3 PCIe x1, 2 x Gen3 PCIe x1, Open End 1 x M.2 Key M 2242/2280/22110 NVMe (PCIe x4 + SATA III) 1 x M.2 Key M 2242/2280/22110 NVMe (PCIe x4 Only) 1 x M.2 Key E 2230 with CNVi Support (PCIe x 1 + USB 2.0)
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## Storage

<b>Storage</b>	1 x M.2 Key M 2242/2280/22110 NVMe (PCIe x4 + SATA III) 1 x M.2 Key M 2242/2280/22110 NVMe (PCIe x4 Only) 4 x SATA III
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## Display

<b>Graphic Chipset</b>	Intel® 12th/13th Generation CPU Integrated
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<b>Spec. &amp; Resolution</b>	2 x HDMI (2.0b): 4K@60Hz 2 x Dual Mode DisplayPort (1.4a): 4K@60Hz
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<b>Multiple Display</b>	Four Display
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## Audio

<b>Audio Codec</b>	Realtek ALC888S HD Audio Decoding Controller
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<b>Audio Interface</b>	Mic-in, Line-out
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<b>Audio Amplifier</b>	2 x 6W 8Ω Amplifier
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## Ethernet

<b>LAN Chipset</b>	2 x Intel® I225LM 2.5G Gigabit Ethernet
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<b>LAN Port</b>	2 x RJ-45
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## Power Requirement

<b>Power Mode</b>	AT/ATX (Default Setting: ATX)
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## Software Support

<b>OS</b>	Windows 10, Windows 11, Linux
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## Certification

<b>Certification Information</b>	CE, FCC Class, RoHS Compliant
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## I/O

<b>USB</b>	6 x USB 3.2 Gen2x1 1 x USB 3.2 Gen2x2 Type-C 8 x USB 2.0 by pin header 2 x USB 3.2 Gen2 by pin header
<b>COM Port</b>	5 x RS-232 1 x RS-232/422/485
<b>SATA</b>	4 x SATA III
<b>RAID</b>	Support RAID 0, 1, 5, 10
<b>DIO</b>	1 x 8-bit GPIO
<b>MIO</b>	1 x PS/2 Header 1 x LPT Header

## Mechanical & Environmental

<b>Operating Temp.</b>	0~60°C (32~140°F)
<b>Storage Temp.</b>	-20 ~ 80°C (-4~176°F)
<b>Operating Humidity</b>	5% to 90% non-condensing
<b>Weight</b>	1.85lbs (0.85kg)
<b>Power Requirement</b>	+12V/+5V/5VSB/+3.3V/-12V
<b>Power Mode</b>	AT/ATX (Default Setting: ATX)
<b>Dimension (L x W)</b>	12" x 9.6" (304.8mm x 243.84mm)

## Ordering Information

<b>Ordering Information</b>	71832-IA LGA 1700 Socket Supports 12th/13th Gen Intel® Core™ i9/i7/i5/i3 Processor, ATX Motherboard with Intel® R680E PCH
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