


Specifications

Chipset	Intel® Q670 / W680
CPU	Intel® LGA1700 CPU (Max TDP at 125W)
Display	Intel® Integrated Graphics - 2x HDMI: support HDMI2.0 (up to 4096x2160@60Hz) - 1x DP++: support DP1.4 (up to 4096x2160@60Hz) - 1x VGA (up to 1920x1200 @60Hz)
Memory	4 x 288-pin DDR4 3200Mhz UDIMM up to 128GB. (Chipset W680 support ECC function)
Storage	- 8x SATAIII (4xSATAIII share with 1xPClex4) - 1x M.2 Key M 2242/2280 (PCIe Gen4x4) - 1x M.2 Key E 2230 (PCIEx1 and USB2.0) - 1x M.2 key B 3042/3052 (PCIe x1 and USB3.0) w/SIM
LAN	Dual Intel® LAN - 1x GbE by I226-V - 1x GbE by I226-LM (support vPro)
Audio	Audio Codec: ALC897 - 1 x Audio jack, support Line-in/Line-out/Mic in on Rear I/O - 1x 2*5 front audio, support Mic-in/ Line out - 1 x 1*4-pin wafer box pin-header for 2W
Expansion Slot	- PCIe1: 1x PCIe Gen4 x 16, select 1x PCIe Gen4x8 - PCIe3: 1x PCIe Gen4 x 8 (by 1xPClex16 slot, share with PCIe1x16 signal) - PCIe2/4/5: 3x PClex4 (1xPClex4 share with 4x SATAIII) - PCI1/2: 2 x PCI
Back Panel I/O	- 2 x LAN, RJ45 w/ dual stacked 2 x USB3.2 Gen2 port - 1 x DP++ port w/ stacked 2 x USB3.2 Gen 2 port - 1 x VGA connector - 2 x HDMI 2.0 port - 1 x Dual DB9 Connector (2 x RS-232/422/485) - 3 x Audio jacks, support Line in/Line out/Mic in
On Board Connectors & Headers	Expansion slots: - 4 x 288-pin DDR4 sockets - 1 x M.2 key M type - 1 x M.2 key E type - 1 x M.2 key B type - 1 x PClex16, select 1x PCIe Gen4x8 - 1 x PClex8 (by 1x PClex16 slot, share with PCIe1x16 signal) - 3 x PClex4 Slot (1xPClex4 share with 4x SATAIII) - 2 x PCI Audio: - 1 x 1*4 pin wafer box for 2W Speaker - 1 x 2*5 front audio, support Mic-in/ Line out USB: - 4 x USB2.0 for 2 x 2*5 pin - 2 x USB3.2 Gen1 for 1x 2*10 pin Serial Port: - 4 x 2*5 pin header for RS232 Power - 1 x 24 pin ATX power connector - 1 x 2*4 pin ATX power connector Others: - 1 x 2*13 Parallel port pin-header (Multi-function with DIO) - 1 x 2*5 pin header for Power button, Reset button, HDD LED, Power LED , Reset LED - 1 x 1*5pin SMBus - 1 x 1*3 pin header clear CMOS - 6 x 2*3pin RS232 voltage select header - (with jumper select for RI/5V/12V, default RI) - 1 x 1*3 pin header for AT/ATX power select jumper FAN - 1 x 1*4pin-header for CPU Fan (Smart Fan) - 1 x 1*4pin-header for SYS Fan (Smart Fan) - 2 x 1*3pin-header for SYS Fan

BIQ67-AHP/BIW68-AHP

Key Feature

- Intel® Q670 / W680 chipset
- LGA1700 socket, 12th/13th/14th Intel® Core processor.
- Dual Intel LAN, 2 x 2.5GbE
- 2 x HDMI 2.0, 1 x DP++, 1 x VGA.
- 4 x DDR4 UDIMM up to 128GB (W680 Support ECC Function)
- 2 x PCIe16 slot, 3 x PClex4 slot, 2 x PCI slot
- 1 x M.2 B key, 1 x M.2 M Key, 1 x M.2 E key
- 6 x USB 3.2 Gen2, 2 x USB 3.2 Gen1, 4 x USB2.0
- 6 x COM ports (2 RS232/422/485, 4 RS232).
- 12 V ATX input.

Serial Port	Support 6 x COM port, define as below, - 2 x RS232/422/485 (COM1/COM2) - 4 x RS232 (COM3-COM6), 4 x 2*5 Header
Digital I/O	1 x 16-Bit DIO header (Multi-function with Parallel port)
Front Panel	1 x 2*5 pin header for power button, Reset button, HDD Led, power LED , Reset LED
TPM	TPM 2.0 chip onboard
RAID	RAID 0/1/5/10
Hardware monitor	CPU/System temperature, Voltage monitoring
RTC	Internal RTC, supports Wake On RTC
Eup	Support
Power Input	- ATX power
Board Size	305 x 244 x 1.6 mm, ATX form factor
Operation Temp.	-0°C ~ 60°C Humidity: 5%~90%
Storage Temp.	-10°C ~ 75°C Humidity: 5%~90%
ESD/ EMI	- Contact with 8Kv, Air with 15Kv - EMI class A
OS Driver Support	- Windows 10 / Windows 11 - Linux Ubuntu



Model Name	BIQ67-AHP	BIW68-AHP
Chipset	Intel® Q670	Intel® W680
Memory	4 x 288-pin DDR4 3200Mhz UDIMM up to 128GB	4 x 288-pin DDR4 3200Mhz UDIMM up to 128GB, Support ECC
Display	2 x HDMI 2.0 1 x DP++ 1 x VGA	2 x HDMI 2.0 1 x DP++ 1 x VGA
M.2 Key B	PCIe x1 and USB3.0 (3042/3052) for 4G/5G	PCIe x1 and USB3.0 (3042/3052) for 4G/5G
M.2 key M	PCIe Gen4x4 (2242/2280) for SSD	PCIe Gen4x4 (2242/2280) for SSD
M.2 key E	PCIEx1 and USB2.0 (2230)for WIFI/BT	PCIEx1 and USB2.0 (2230)for WIFI/BT
PCIe/PCI	1 x PCIe Gen4 x 16, select 1x PCIe Gen4x8 1x PCIe Gen4 x 8 (by 1xPClex16 slot, share with PCIe1x16 signal) 3x PClex4 (1xPClex4 share with 4x SATAIII) 2 x PCI	1 x PCIe Gen4 x 16, select 1x PCIe Gen4x8 1x PCIe Gen4 x 8 (by 1xPClex16 slot, share with PCIe1x16 signal) 3x PClex4 (1xPClex4 share with 4x SATAIII) 2 x PCI