

4U Rackmount AI Server System

HB190MA3H-R680 Series

AI Edge Server with options of 52 TOPs and 104 TOPs AI PCIe Module. Intel® R680E chipset supports LGA 1700 socket for 12th/13th Core™ i9/i7/i5/i3 Pentium® Processor with DDR5-4800MHz up to 128GB memory.

Features

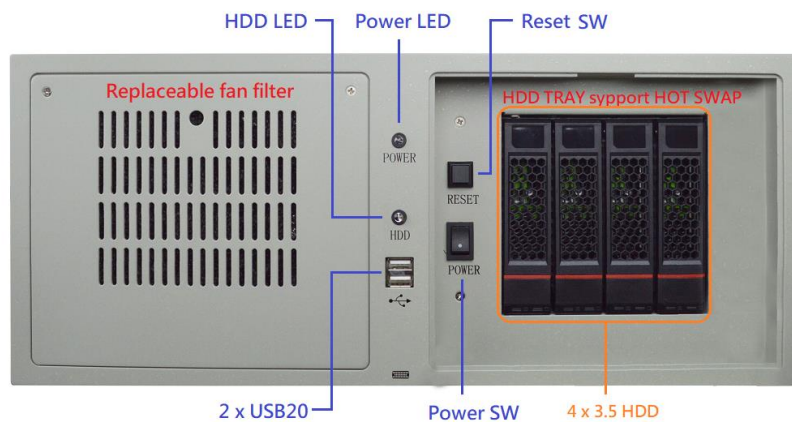
1. Intel® 13th LGA1700 Socket Processor
2. Intel® R680E Chipset
3. 4* DDR5 4800MHz Long-DIMM up to 128GB
4. **Hailo-8 expansion card , up to 52/104 TOPS**
5. 2* 2.5GbE, 8* USB3.2 (Gen.2), 1* HDMI
6. 4* SATAIII support HOT SWAP
7. Dimensions : 480 x 430 x 177 mm
8. ATX 500W POWER



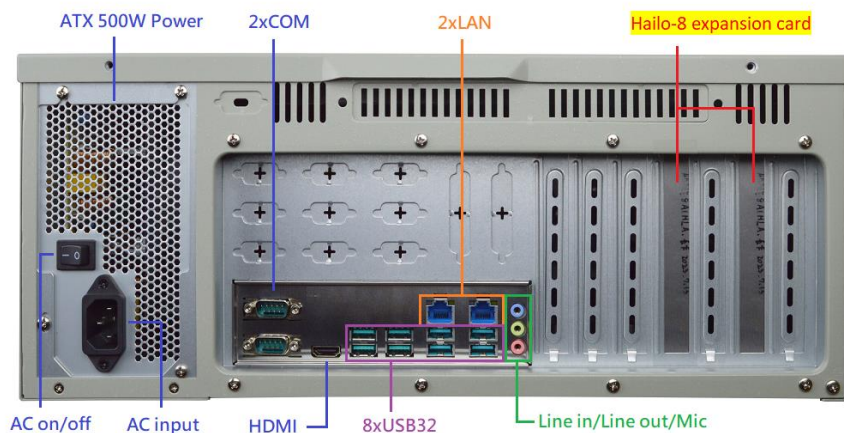
HAILO
Empowering Intelligence

intel. FC CE RoHS
COMPLIANT

Front I/O



Rear I/O



Specifications

Model	<ul style="list-style-type: none"> • HB190MA3H-R680-AI2 (1* HAILO-8™ Card / 52 TOPS) • HB190MA3H-R680-AI4 (2* HAILO-8™ Card / 104 TOPS)
CPU / Chipset	<ul style="list-style-type: none"> • Intel® 13th LGA1700 Socket Core i9/i7/i5/i3/Pentium/Celeron Processor • Intel R680E CHIP • Max. 125W TDPs under 240A
MB Model	<ul style="list-style-type: none"> • MA3H-R680 (TPM2.0 ,ATX ,305 x 244mm)
AI Accelerator	<ul style="list-style-type: none"> • Model : ADPIE8AIHLA (144.7 x 69mm) • 1/2 * HAILO-8™ Card (by model) • PCIe Gen.3 x8 interface
BIOS	<ul style="list-style-type: none"> • AMI Flash ROM BIOS <p><i>*Support recover crashed BIOS data tool by a USB flash pen driver:</i></p> <ol style="list-style-type: none"> 1. Using JetBIOS SW back up tool with any external USB ports 2. Using JetBIOS HW recovery tool with specific USB port (internal USBX)
Memory	<ul style="list-style-type: none"> • 4* Dual CH DDR5 4800MHz Long-DIMM up to 128GB support ECC
Network	<ul style="list-style-type: none"> • 1* Intel i225-LM 2.5GbE • 1* Intel i225-V 2.5GbE
Graphics	<ul style="list-style-type: none"> • Intel® UHD Graphics, shared memory • 1* HDMI 2.0b (Max Resolution: 4096x2160@60Hz)
Audio	<ul style="list-style-type: none"> • HD audio: Realtek ALC888S
Storage	<ul style="list-style-type: none"> • 1* M.2 M-key (2242/2280, PCIe Gen.4 x4) support NVME • 1* M.2 M-key (2242/2280, PCIe Gen.4 x4/SATA Interface) support NVME • 4* 2.5"/3.5" Device (4 HDD TRAY Design,support HOT SWAP)
Expansion	<ul style="list-style-type: none"> • 1* M.2 E-Key (2230, PCIe Gen.3 x1/USB2.0 interface) support CNVi for WiFi • 1* M.2 B-Key (3042/3052, PCIe Gen.3 x1/USB3.2 Gen.2/USB2.0 interface) for 4G/5G • 2* PCIe x16 GEN4 (1 x16 signals or 2 x8 signals) for Graphic card
Rear Panel I/O	<ul style="list-style-type: none"> • 8* USB3.2 (Gen.2) • 2* LAN • 1* HDMI • 2* COM (1*RS232/422/485 support 5V/12V TTL, 1*RS232) • 1* Line-in, Line-out, MIC
Front Panel I/O	<ul style="list-style-type: none"> • 1* Power SW , 1* Reset SW • 1* Power LED , 1* HDD LED • 2* USB2.0
Internal Connector	<ul style="list-style-type: none"> • SIM Card Holder • 1* 8-bits GPIO
Power Source	Power : ATX 500W MB : ATX 24pin + 8pin
Compliance	<ul style="list-style-type: none"> • CE, FCC, LVD, RoHS, ErP Ready
Dimensions	<ul style="list-style-type: none"> • System: 480(W) x 430(D) x 177(H) mm • Net Weight: 5.8KG Gross Weight: 6.8KG
Temperature	<ul style="list-style-type: none"> • Operating Temperature: 0 ~ 50° C • Storage Temperature: -40 ~ 85° C • Humidity: 10% ~ 95% RH @40°C (non-condensing)
OS Support	<ul style="list-style-type: none"> • Windows 11, Linux
Warranty	<ul style="list-style-type: none"> • 2 Years limited warranty

* Specifications subject to change without notice, not responsible for typographical errors. Does not include HDD or OS.

Part Number Rules

HB190MA3H-R680-AIX

BB model

MB model

AI2 : 1 * HAILO-8™ Card
 AI4 : 2 * HAILO-8™ Card

Standard Accessories

Part Number	Description
-----	HB190MA3H-R680 SERIES
	1* Power core
	1* LGA1700 CPU FAN Module
	1* Screw Pack

AI Card collocation diagram

