

Eagle Eyes-AIH-EP

6th/7th Generation Intel® Xeon® E3/Core™ S Series (FCLGA1151 Socket) Box Computer



Features

- 6th/7th gen Intel® platform (formerly Skylake/Kaby Lake), Xeon® E3/Core™ S i7, i5, i3, Pentium® and Celeron® processor
- Supports LGA1151 socket desktop processor up to 35W
- Intelligent eKit with AI function to monitor system health via DDM
- Special Power Design:
 - Wide voltage 9~36V DC input
 - RVP/OVP/UVP/OCV support
 - Surge protection: 200V/1ms
 - Power ignition control
- Easy Expansion & Installation:
 - One side bezel access and easy cable management
 - Remote on/off power switch with LED
 - Easily replaceable RTC battery holder
 - 3x SIM push-push slots

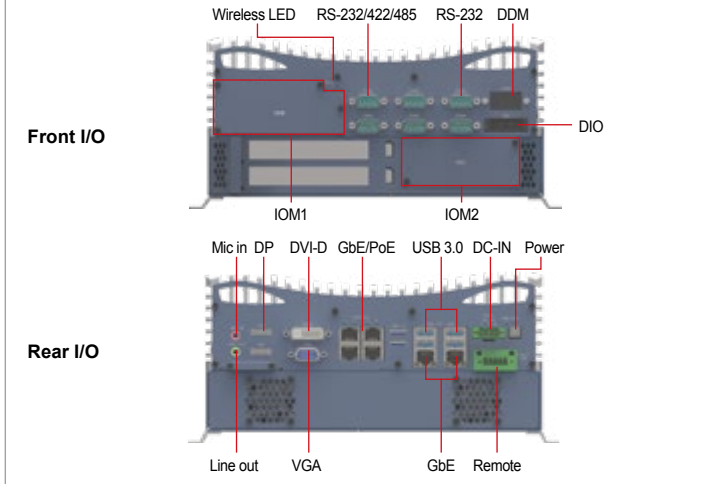


Specifications

System	
CPU	6th/7th gen Intel® Xeon® E3/Core™ S (formerly Skylake/Kaby Lake) LGA1151 socket type CPU (supports TDP up to 35W)
Chipset	Intel® C236 Chipset
Memory	2x DDR4 SO-DIMM Max. 64GB (Skylake: DDR4-2133; Kaby Lake: DDR4-2400)
Graphics	Xeon®: HD Graphics P530 (Skylake)/P630 (Kaby Lake) Core™ i Series: HD Graphics 530 (Skylake)/630 (Kaby Lake) Pentium®/Celeron®: HD Graphics 510 (Skylake)/610 (Kaby Lake)
BIOS	AMI 128Mbit SPI BIOS
AI Controller (AIC)	AI for system monitoring and predictive analysis
Watchdog Timer	Runtime: 10 – 65535 seconds Powerup: 120 – 65535 seconds
TPM (optional)	SLB9665 (TPM 2.0) / SLB9635 (TPM 1.2)
Power	
DC Input	9~36VDC
Surge Protection	200V/1ms
Power in Protection	Reverse-Voltage, Over-Voltage, Under-Voltage, Over-Current
Remote/ignition	1x ATX power on/off switch, 5-pin terminal block including 3-pin remote control and 2-pin ignition signals (pitch 3.81 mm)
Power Mode	AT/ATX (BIOS setting)
Mechanical	
Dimensions (WxDxH)	260(W) x 206(D) x 124.4(H) mm (10.24" x 8.11" x 4.90")
Weight (net/gross)	5.3kg
Mounting	Foot stand; wall mount bracket (optional)
Construction	Aluminum and metal chassis with fanless design
Battery	Easily replaceable RTC battery holder
Dynamic Display Module (DDM)	0.96 inch LCM work with AIC to display system status
External IO	
Display Ports / Resolution	2x DP/4096x2304@60Hz 1x DVI-D/1920x1200@60Hz 1x VGA/1920x1200@60Hz
Triple Display Ports Combinations	2x DP + 1x DVI-D 2x DP + 1x VGA 1x DP + 1x DVI-D + 1x VGA
Ethernet	2x RJ45 GbE (Intel® i219 + Intel® i210) / Wake-on-LAN and PXE/ i219 supports iAMT 11.0
PoE (optional)	4x RJ45 GbE PoE+ (Intel® i210) 802.3at support up to 30W
USB 3.0/2.0	6x USB 3.0 ports via native XHCI controller (0.9A each port)
COM	2x RS-232/422/485 (auto flow control), 4x RS-232 port
Digital I/O	16-bit programmable DIO (AIH) 8-bit isolated DI & 8-bit isolated DO, sink/source mode, 5~48V, 100mA (AIH-EP-i)
Audio	ALC892 HD audio codec, Mic in, Line out
SIM	3x SIM push-push slots

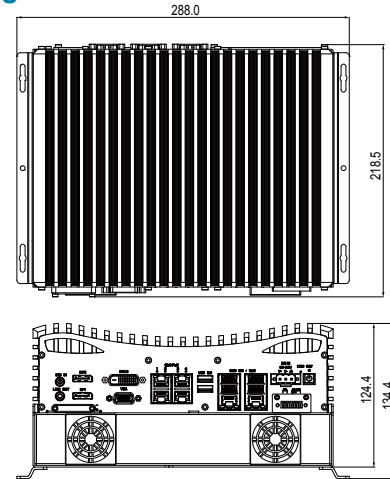
Storage	
Internal Drive Bay	3x internal SATA port for 2.5" HDD/SSD
mSATA	3x full length mSATA (muxed with Mini-PCIe)
Removable Drive Bay	NA
RAID Mode	RAID 0/1/5
Expansion Slot	
Mini-PCIe	3x full length Mini-PCIe (muxed with mSATA, auto detection)
IOM1/IOM2 (optional)	Supports IOM1/IOM2 module
PCI / PCIe	AIH-EP1(N): 1x PCIe x16 + 1x PCI (PCI slot can't concurrent with IOM2) AIH-EP2(N): 1x PCIe x16 + 1x PCI x4 (PCIe x4 slot can't concurrent with IOM2) AIH-EP3(N): 2x PCI
Other	
USB 2.0 Dongle	Internal 1x USB 2.0 for dongle security key
Antenna	4x antenna openings
LED	Power status, HDD status, IO status
Environment	
Operating Temperature	Standard: -20°C to 50°C (-4°F~122°F), supports 35W TDP CPU Extended temperature: -25°C to 70°C (-13°F~158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	95% @ 40°C (104°F), non-condensing
Vibration During Operation	5Grms with SSD (IEC60068-2-64: random 5~500Hz)
Shock During Operation	50Grms with SSD (IEC60068-2-27: Half Sine, 11ms duration)
Certification	
EMC	CE/FCC Class A
Safety Certifications	CB
OS Support	
Windows	Windows 7 32-bit/64-bit (Skylake only) Windows 8.1 32-bit/64-bit (Skylake only) Windows Embedded Standard 7 (Skylake only) Windows Embedded 8 Standard (Skylake only) Windows 10 64-bit Windows 10 IoT
Linux	Linux

I/O Interfaces



Dimensions

Units: mm



I/O Comparison Chart

Model Name	DP	DVI-D	VGA	GbE (RJ45)	GbE / PoE (RJ45)	DIO	USB 3.0	RS-232	RS-232 / 422 / 485	Internal 2.5" Disk Bay	Expansion Slot
AIH-EP1(N)											1x PCIe x16, 1x PCI
AIH-EP2(N)						16-bit DIO					1x PCIe x16, 1x PCIe x4
AIH-EP3(N)											2x PCI
AIH-EP1(N)-i	2	1	1	2	4		6	4	2	3	1x PCIe x16, 1x PCI
AIH-EP2(N)-i						8-bit isolated DI & 8-bit isolated DO					1x PCIe x16, 1x PCIe x4
AIH-EP3(N)-i											2x PCI

Ordering Information

	Model Name	Article Number (A/N)
Barebone System with FAN kit	AIH-EP1	01051
	AIH-EP2	01101
	AIH-EP3	01151
	AIH-EP1-i	01052
	AIH-EP2-i	01102
	AIH-EP3-i	01152
Barebone System without FAN kit	AIH-EP1N	01076
	AIH-EP2N	01126
	AIH-EP3N	01176
	AIH-EP1N-i	01077
	AIH-EP2N-i	01127
	AIH-EP3N-i	01177

CPU (Optional)

6th Gen Skylake

E3-1268L v5	Xeon® E3-1268L v5 (4 cores/8 threads, 2.4 GHz/3.4 GHz, 8MB cache, 35W TDP)
i7-6700TE	Core™ i7-6700TE (4 cores/8 threads, 2.4 GHz/3.4 GHz, 8MB cache, 35W TDP)
i5-6500TE	Core™ i5-6500TE (4 cores/4 threads, 2.3 GHz/3.3 GHz, 6MB cache, 35 W TDP)
i3-6100TE	Core™ i3-6100TE (2 cores/4 threads, 2.7 GHz, 4MB cache, 35 W TDP)
G4400TE	Pentium® G4400TE (2 cores/2 threads, 2.4 GHz, 3MB cache, 35 W TDP)
G3900TE	Celeron® G3900TE (2 cores/2 threads, 2.3 GHz, 2MB cache, 35 W TDP)

7th Gen Kaby Lake

i7-7700T	Core™ i7-7700T (4 cores/8 threads, 2.9 GHz/3.8 GHz, 8MB cache, 35W TDP)
i5-7500T	Core™ i5-7500T (4 cores/4 threads, 2.7 GHz/3.3 GHz, 6MB cache, 35W TDP)
i3-7101TE	Core™ i3-7101TE (2 cores/4 threads, 3.4 GHz, 3MB cache, 35W TDP)

Optional Accessories

IOM1(2) Module		IOM1(2)-4GR	4x RJ45 GbE
		IOM1(2)-4GM	4x RJ45 GbE with PoE (30.4W each port)
		IOM1(2)-4GRP	4x M12 GbE
		IOM1(2)-4GMP	4x M12 GbE with PoE (30.4W each port)
IOM1 Module		IOM1(2)-2SFP+	2x 10GbE Fiber ethernet
		IOM1(2)-4U3	4x USB 3.0
Isolated Module			
iDIO-8I8O	8-bit isolated DI & 8-bit isolated DO module		

Other Accessories

AC-DC Power Adapter

AC-DC power adapter with pitch 5.0mm 3-pin terminal block plug

ADT-24V60-T3A	24V/60W
ADT-24V90-T3A	24V/90W
ADT-24V120-T3A	24V/120W
ADT-24V160-T3A	24V/160W
ADT-24V220-T3A	24V/220W
ADT-24V280-T3A	24V/280W

AC Power Cord

H05VV-F 3G 0.75mm², 1.8m, 250V, 10A

PCBL-B12	YP12-YC12: category B type plug, TW/JP/US/CA/TH/PH/Central America
PCBL-D03	YP03-YC12: category D type plug, CN
PCBL-D35	YP35-YC12: category D type plug, AU/NZ
PCBL-G22	YP22-YC12: category G type plug, DE
PCBL-I61	YP61-YC12: category I type plug, UK/HK/MO/SG/MY

SO-DIMM Memory

DDR4-2133/2400 2GB/4GB/8GB/16GB/32GB

SSD	mSATA SSD: 16GB/32GB/64GB/128GB/256GB/512GB/1TB
	2.5 inch SSD: 16GB/32GB/64GB/128GB/256GB/512GB/1TB
	2.5 inch HDD: 500GB/1TB/1.5TB/2TB

Wireless Module

Mini-PCIe wireless module for 3G/4G LTE/Wi-Fi/BT/NB-IoT/GPS/BDS

Cable & Connector

CBL-S01	SATA (Data + Power) cable x1
TBP5-S03	3-Pin, pitch5.0mm Female Terminal Block Plug for DC input x1
TBP3-S05	5-Pin, pitch3.81mm Female Terminal Block Plug for remote connector x1
TBP3-D20	2x10-Pin, pitch2.54mm Female Terminal Block Plug for DIO connector x1

Mounting Kit

WBK-AIH	Wall mount bracket x2 with M3x6 screws x6
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Packing List

Item No.	
1	Eagle Eyes Embedded Box PC AIH-EP x1
2	Rubber foot x4 with M3x6 screws x6