

# Eagle Eyes-AIH

6th/7th Generation Intel® Xeon® E3/Core™ S Series (FCLGA1151 Socket) Box Computer, 2x RJ45 GbE, 4x RJ45 GbE/PoE



## 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
- Wi-Fi and wireless communications: 4G, WLAN, GPS, GSM//GPRS, and Bluetooth
- Special Power Design:
  - Wide voltage 9~36V DC input
  - RVP/OVP/UV/OC 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 sockets
  - 2x M.2 2280 NVMe (PCIe x4) supported optional



DDM



Multi-LAN



Multi-USB



RS-232/422/485



4K Support



4K Support



Wide Range DC Input 9~36V



Wide Range DC Input 9~36V



Wide Range DC Input 9~36V



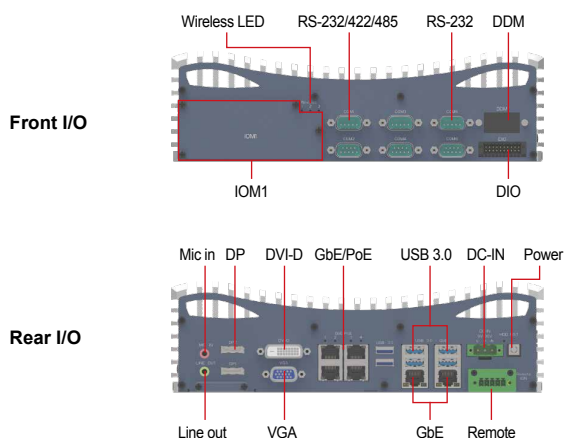
Wide Range Operating

## Specifications

System	
<b>CPU</b>	6th/7th gen Intel® Xeon® E3/Core™ S (formerly Skylake/Kaby Lake) LGA1151 socket type CPU (supports TDP up to 35W)
<b>Chipset</b>	Intel® C236 Chipset
<b>Memory</b>	2x DDR4 SO-DIMM Max. 64GB (Skylake: DDR4-2133; Kaby Lake: DDR4-2400)
<b>Graphics</b>	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)
<b>BIOS</b>	AMI 128Mbit SPI BIOS
<b>AI Controller (AIC)</b>	AI for system monitoring and predictive analysis
<b>Watchdog Timer</b>	Runtime: 10 – 65535 seconds Powerup: 120 – 65535 seconds
<b>TPM (optional)</b>	Infineon OPTIGA™ SLB9665 (TPM 2.0) / SLB9635 (TPM 1.2)
Power	
<b>DC Input</b>	9~36VDC
<b>Surge Protection</b>	200V/1ms
<b>Power in Protection</b>	Reverse-Voltage, Over-Voltage, Under-Voltage, Over-Current
<b>Remote/ignition</b>	1x ATX power on/off switch, 5-pin terminal block including 3-pin remote control and 2-pin ignition signals (pitch 3.81 mm)
<b>Power Mode</b>	AT/ATX (BIOS setting)
Mechanical	
<b>Dimensions (WxDxH)</b>	260(W) x 206(D) x 77.42(H) mm (10.24" x 8.11" x 3.05")
<b>Weight (net/gross)</b>	3.7kg
<b>Mounting</b>	Foot stand; wall mount bracket (optional)
<b>Construction</b>	Aluminum and metal chassis with fanless design
<b>Battery</b>	Easily replaceable RTC battery holder
<b>Dynamic Display Module (DDM)</b>	0.96 inch LCM work with AIC to display system status
External IO	
<b>Display Ports / Resolution</b>	2x DP/4096x2304@60Hz 1x DVI-D/1920x1200@60Hz 1x VGA/1920x1200@60Hz
<b>Triple Display Ports Combinations</b>	2x DP + 1x DVI-D 1x DP + 1x VGA 1x DP + 1x DVI-D + 1x VGA
<b>Ethernet</b>	2x RJ45 GbE (Intel® i219 + Intel® i210) / Wake-on-LAN and PXE/ i219 supports iAMT 11.0
<b>PoE (optional)</b>	4x RJ45 GbE PoE+ (Intel® i210 ) 802.3at support up to 30W
<b>USB 3.0/2.0</b>	6x USB 3.0 ports via native XHCI controller (0.9A each port)
<b>COM</b>	2x RS-232/422/485 (auto flow control), 4x RS-232 port
<b>Digital I/O</b>	16-bit programmable DIO (AIH) 8-bit isolated DI & 8-bit isolated DO, Sink/Source Mode, 5~48V, 100mA (AIH-i)
<b>Audio</b>	ALC892 HD audio codec, Mic in, Line out
<b>SIM and USIM Socket</b>	3x SIM Push-Push sockets – SIM supports 2G USIM supports 3 & 4G
<b>Wi-Fi/Cellular</b>	Supports Wi-Fi/LTE modules via 3x Mini PCIe interfaces

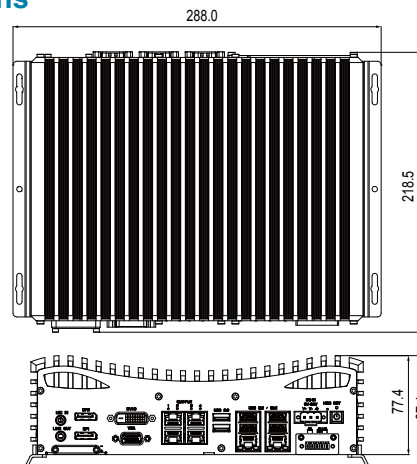
Storage	
<b>Internal Drive Bay</b>	3x internal SATA port for 2.5" HDD/SSD
<b>mSATA</b>	3x full length mSATA (muxed with Mini-PCIe)
<b>Removable Drive Bay</b>	NA
<b>NVMe Support</b>	2x M.2 2280 NVMe supported via expansion slot optional
<b>RAID Mode</b>	RAID 0/1/5
Expansion Slot	
<b>Mini-PCIe</b>	3x full length Mini PCIe (muxed with mSATA, auto detection)
<b>IOM1 (optional)</b>	Supports IOM1 module
Other	
<b>USB 2.0 Dongle</b>	Internal 1x USB 2.0 for dongle security key
<b>Antenna</b>	4x antenna openings
<b>LED</b>	Power status, HDD status, IO status
Environment	
<b>Operating Temperature</b>	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)
<b>Storage Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b>Relative Humidity</b>	95% @ 40°C (104°F), non-condensing
<b>Vibration During Operation</b>	5Grms with SSD (IEC60068-2-64: random 5~500Hz)
<b>Shock During Operation</b>	50Grms with SSD (IEC60068-2-27: Half Sine, 11ms duration)
Certification	
<b>EMC</b>	CE/FCC Class A
<b>Safety Certifications</b>	CB
OS Support	
<b>Windows</b>	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
<b>Linux</b>	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	M.2 2280 NVMe	Internal 2.5" Disk Bay
AIH						16-bit DIO					
AIH-i						8-bit isolated DI & 8-bit isolated DO				0	
AIH-NVMe	2	1	1	2	4	16-bit DIO	6	4	2		3
AIH-i-NVMe						8-bit isolated DI & 8-bit isolated DO				2	

## Ordering Information

Model Name	Article Number (A/N)
AIH Barebone System	01001
AIH-i Barebone System	01002
AIH-NVMe Barebone System	01A01
AIH-i-NVMe Barebone System	01A02

### CPU (Optional)

#### 6th Gen Skylake

E3-1268Lv5	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 Module

	IOMH1-4GR	4x RJ45 GbE
	IOMH1-4GRP	4x RJ45 GbE with PoE (30.4W each port)
	IOMH1-4GM	4x M12 GbE
	IOMH1-4GMP	4x M12 GbE with PoE (30.4W each port)
	IOMH1-4U3	4x USB 3.0
	IOMH1-2SFP+	2x 10GbE Fiber ethernet

### Isolated Module

iDIO-8I8O	8-bit isolated DI & 8-bit isolated DO module
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## Other Accessories

<b>AC-DC Power Adapter</b>	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
<b>AC Power Cord</b>	H05VV-F 3G 0.75mm <sup>2</sup> , 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
<b>SO-DIMM Memory</b>	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
<b>Wireless Module</b>	Mini PCIe wireless module for 3G/4G LTE/Wi-Fi/BT/NB-IoT/GPS/BDS

### Cable & Connector

CBL-S01	1x SATA (Data + Power) cable
TBP5-S03	1x 3-Pin, pitch 5.0mm Female Terminal Block Plug for DC input
TBP3-S05	1x 5-Pin, pitch 3.81mm Female Terminal Block Plug for remote connector
TBP3-D20	1x 2x10-Pin, pitch 2.54mm Female Terminal Block Plug for DIO connector

### Mounting Kit

WBK-AIH	2x Wall mount bracket with 6x M3x6 screws
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## Packing List

Item No.	Description
1	1x Eagle Eyes Embedded Box PC AIH
2	4x Rubber foot with 6x M3x6 screws