Eagle Eyes-AIHD

6th/7th gen Intel® Xeon® E3/Core™ S Series (FCLGA1151 Socket) DIN Rail 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/OCP 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

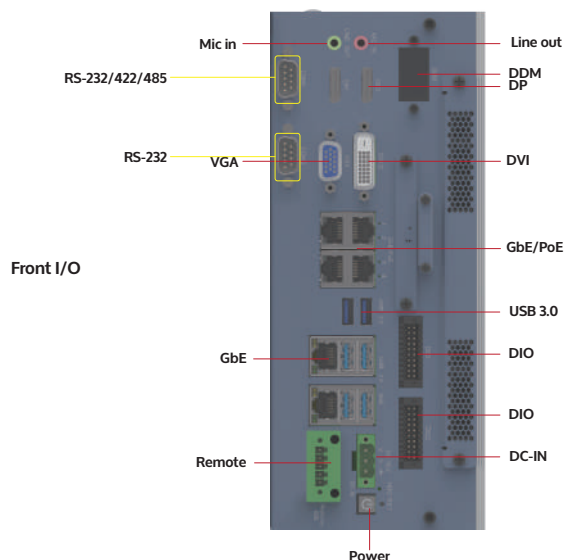| DDM | Multi- LAN | Multi-USB | RS-232/422/485 | 4K Support | Triple Display | Wide Range DC Input 9~36V | Remote Power on/off Control | Ignition Control 16 levels (0~75s) | Wide Range Operating |

I/O Comparison Chart

Model Name	DP	DVI	VGA	GbE (RJ45)	GbE / PoE (RJ45)	DIO	USB 3.0	RS-232	RS-232 / 422 / 485	Internal 2.5" Disk Bay
AIHD	2	1	1	6	0	32-bit DIO	6	1	1	3
AIHD-i	2	1	1	6	0	16-bit DIO, 8-bit isolated DI & 8-bit isolated DO	6	1	1	3
AIHD-i2	2	1	1	6	0	16-bit isolated DI & 16-bit isolated DO	6	1	1	3
AIHDP	2	1	1	2	4	32-bit DIO	6	1	1	3
AIHDP-i	2	1	1	2	4	16-bit DIO, 8-bit isolated DI & 8-bit isolated DO	6	1	1	3
AIHDP-i2	2	1	1	2	4	16-bit isolated DI & 16-bit isolated DO	6	1	1	3

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)
Graphic	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 (W x D x H)	102(W) x 206(D) x 243(H) mm (4.01" x 8.11" x 9.57")
Weight (net/gross)	4.5kg
Mounting	DIN rail mount, wall mount bracket and foot stand
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

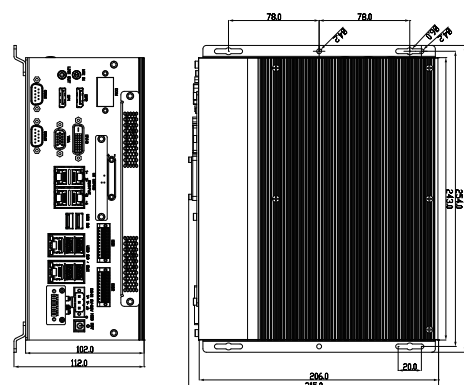|	
Display Ports / Resolution	2x DP /4096x2304@60Hz
	1x DVI/1920x1200@60Hz
	1x VGA/1920x1200@60Hz
Triple Display Ports Combinations	2x DP + 1x DVI
	2x DP + 1x VGA
	1x DP + 1x DVI + 1x VGA
Ethernet	6x RJ45 GbE (1x Intel®i219+ 5x Intel®i210) / Wake-on-LAN and PXE/ i219 supports iAMT 11.0 (AIHD)
	2x RJ45 GbE (1x Intel®i219+ 5x Intel®i210) / Wake-on-LAN and PXE/ i219 supports iAMT 11.0 (AIHDP)
PoE	4x RJ45 GbE PoE+ (Intel®i210) 802.3at support up to 30W (AIHDP)
USB 3.0/2.0	6x USB 3.0 ports via native XHCI controller (0.9A each port)
COM	1x RS-232/422/485 (auto flow control), 1x RS-232 port
Digital I/O	32-bit programmable DIO (AIHD, AIHDP)
	16-bit programmable DIO, isolated 8-bit DI & 8-bit DO, Sink/Source Mode, 5~48V, 100mA (AIHD-i, AIHDP-i)
	16-bit isolated DI & 16-bit isolated DO, Sink/Source Mode, 5~48V, 100mA (AIHD-i2, AIHDP-i2)
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)

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 CPU TDP up to 35W
	Extended temperature: -25°C to 70°C (-13°F~158°F) (For more information, please contact your representative)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	95% @ 40°C (104°F), non-condensing
Vibration During Operation (IEC60068-2-64: Random 5~500Hz)	5Grms with SSD; 1Grms with HDD
Shock During Operation (IEC60068-2-27: Half Sine, 11ms Duration)	50Grms with SSD; 20Grms with HDD

Certification

EMC	CE/FCC Class A
Safety Certifications	CB

OS Support

Optional OS Installation	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

I/O Interfaces

Mic in — Line out
RS-232/422/485
— DDM
— DP
RS-232 — VGA — DVI
Front I/O
— GbE/PoE
— USB 3.0
GbE — DIO
— DIO
Remote — DC-IN
Power

Dimensions

Units: mm

Ordering Information

Remark: Following models include 6th/7th Gen Intel® Skylake S/Kaby Lake S (SKL-S/KBL-S) platform, LGA1151 socket desktop CPU, 2x DP, 1x DVI, 1x VGA, 6x USB 3.0, 1x RS-232/422/485, 1x RS-232, 3x internal SATA port for 2.5" HDD/SSD

Model Name		
AIHD	Barebone System	6x GbE (RJ45), 32-bit DIO
AIHD-i	Barebone System	6x GbE (RJ45), 16-bit DIO,8-bit isolated DI & 8-bit isolated DO
AIHD-i2	Barebone System	6x GbE (RJ45), 16-bit isolated DI & 16-bit isolated DO
AIHDP	Barebone System	2x GbE (RJ45), 4x GbE/PoE(RJ45), 32-bit DIO
AIHDP-i	Barebone System	2x GbE (RJ45), 4x GbE/PoE (RJ45), 16-bit DIO,8-bit isolated DI & 8-bit isolated DO
AIHDP-i2	Barebone System	2x GbE (RJ45), 4x GbE/PoE (RJ45), 16-bit isolated DI & 16-bit isolated DO

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

Isolated Module

iDIO-8I8O	8-bit isolated DI & 8-bit isolated DO module

Other Accessories

AC-DC Power Adapter

ADT-24V60-T3A	24V/60W AC-DC power adapter with pitch 5.08mm 3-pin terminal block plug
ADT-24V90-T3A	24V/90W AC-DC power adapter with pitch 5.08mm 3-pin terminal block plug
ADT-24V120-T3A	24V/120W AC-DC power adapter with pitch 5.08mm 3-pin terminal block plug
ADT-24V160-T3A	24V/160W AC-DC power adapter with pitch 5.08mm 3-pin terminal block plug
ADT-24V220-T3A	24V/220W AC-DC power adapter with pitch 5.08mm 3-pin terminal block plug
ADT-24V280-T3A	24V/280W AC-DC power adapter with pitch 5.08mm 3-pin terminal block plug

AC Power Cord

PCBL-B12	YP12-YC12:category B type plug, H05VV-F 3G 0.75mm2, 1.8m, 250V, 10A, TW/JP/US/CA/TH/PH/Central America
PCBL-D03	YP03-YC12:category D type plug, H05VV-F 3G 0.75mm2, 1.8m, 250V, 10A, CN
PCBL-D35	YP35-YC12:category D type plug, H05VV-F 3G 0.75mm2, 1.8m, 250V, 10A, AU/NZ
PCBL-G22	YP22-YC12:category G type plug, H05VV-F 3G 0.75mm2, 1.8m, 250V, 10A, DE
PCBL-I61	YP61-YC12:category I type plug, H05VV-F 3G 0.75mm2, 1.8m, 250V, 10A, 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

CBL-S01	SATA (Data + Power) cable x1
TBP5-S03	3-Pin, pitch5.08mm 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, pitch3.5mm Female Terminal Block Plug for DIO Connector x1

Mounting Kit

WBK-AIH	Wall Mount Bracket x2 with M3x6 screws x6
UTA-159	Phoenix Contact DIN Rail Clip with M3x6 screws x6

Packing List

Item No.	
1	Eagle Eyes Embedded Box PC AIHD x1

* Please contact sales representative

www.enbik.com

Note: All product specifications are subject to change without notice.