

# AIHD10 Series

Intel® Core™ S Series & Xeon® W DIN Rail Box Computer



AIHD10 Series



AIHD10F Series

## Features

- Intel® Xeon® W/ Core™ S i9, i7, i5, i3, processor
- Supports LGA1200 socket desktop processor up to 95W
- Intelligent eKit with AI function to monitor system health
- Wi-Fi and Wireless Communication: 4G, 5G, WLAN, GPS, GSM/GPRS, WiFi 6 and Bluetooth
- Special Power Design:
  - Wide voltage 9~48V DC input
  - RVP/OVP/UVLP/OCPP support
  - Surge protection: 200V/1ms
  - Power ignition control
- Easy Expansion & Installation:
  - One side bezel access and easy cable management
  - Remote on/off power switch

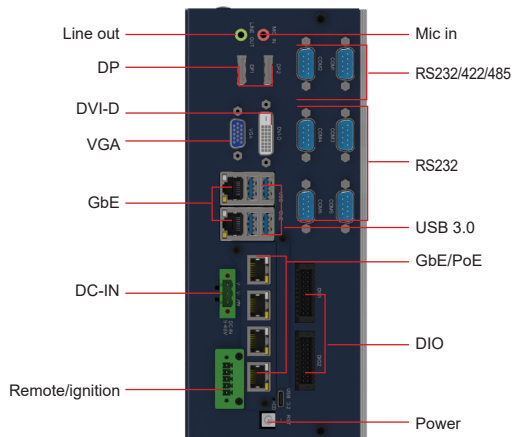


## Specifications

	AIHD10	AIHD10L
<b>System</b>		
<b>CPU</b>	Intel® Xeon®/Core™S 10th gen Intel® Core i9/i7/i5/i3 35W-95W	Intel® Pentium®/Celeron® 10th gen Intel® Core i9/i7/i5/i3 35W-65W
<b>Chipset</b>	Intel® W480E	Intel® H420E
<b>Memory</b>	2x DDR4 SO-DIMM Slot (Support DDR2933/2666/2400) ECC memory support by CPU	
<b>Graphics</b>	Intel® UHD Graphics	
<b>BIOS</b>	AMI	
<b>AI Controller (AIC)</b>	AI for system monitoring and predictive analysis (DMCI Library & DMCT app available)	
<b>TPM</b>	TPM 2.0 SLB9665	
<b>Power</b>		
<b>DC Input</b>	9~48VDC	
<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/ Ignition (BIOS setting)	
<b>Mechanical</b>		
<b>Dimensions (WxDxH)</b>	102(W) x 206(D) x 243(H) mm (4.01" x 8.11" x 9.57") Expansion Box: (P4E): 199(W) x 218(D) x 243(H) mm (7.83" x 8.58" x 9.57") (GP4E): 200.5(W) x 362(D) x 243(H) mm (7.89" x 14.25" x 9.57")	
<b>Weight (net/gross)</b>	4.5kg	
<b>Mounting</b>	(Standard) foot stand (Option) DIN rail mount or wall mount bracket	
<b>External IO</b>		
<b>Display Ports / Resolution</b>	1x VGA 2x Display Port 1x DVI-D	
<b>Triple Display Ports Combinations</b>	2x DP+ 1x VGA 2x DP+ 1x DVI-D 1x DP+ 1x DVI-D+ 1x VGA	1x DP+ 1x VGA 2x DP 1x DP+ 1x DVI-D 1x DVI-D+ 1x VGA
<b>Ethernet</b>	2x RJ45 GbE (1x i219LM + 1x i210IT)	
<b>Digital I/O</b>	2x DIO ports: (standard): 2x non-isolated 16-bit GPIO (option-i): 2x isolated 8-bit DI & 8-bit DO	
<b>USB</b>	1x USB3.2 Type C (With 2 DP Lanes, PD Support) 4x USB3.2 Type A (Gen2)	
<b>COM</b>	2x RS-232/422/485 (auto flow control), 4x RS-232	
<b>Audio</b>	ALC892, Mic in, Line out	
<b>IOM Option</b>	AIHD10 4x i210 RJ45 GbE AIHD10P 4x i210 RJ45 GbE PoE+ AIHD10V 4x i210 M12 GbE AIHD10VP 4x i210 M12 GbE PoE+ AIHD10U 8x USB 3.0 Type A	NA

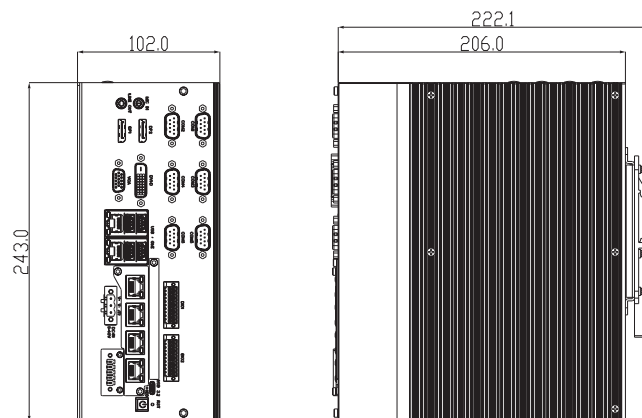
<b>Storage</b>		
<b>Internal Drive Bay</b>	3x internal SATA port for 2.5" HDD/SSD	
<b>M.2</b>	2x PCIe4 NVMe, M.2 M Key 2280	1x PCIe4 NVMe, M.2 M Key 2280
<b>mSATA</b>	1x full length mSATA (muxed with Mini PCIe)	
<b>Micro SD</b>	1x Micro SD	
<b>Expansion Slot</b>		
<b>Mini-PCIe</b>	1x MiniCard (mPCIe/mSATA/USB2.0/SIM) (Support Power On/Off, SIM Detect) 1x MiniCard (mPCIe/USB2.0/SIM) (Support Power On/Off, SIM Detect)	1x MiniCard (mSATA/USB2.0/SIM) (Support Power On/Off, SIM Detect)
<b>M.2</b>	1x M.2 B Key 3052 (USB3.0/PCIe/SIM)(Support Power On/Off, SIM Detect) 1x M.2 E Key 2230	
<b>PCI/PCIe (Expansion Box)</b>	*P4E1 (1x PCIe x16, 3x PCI) *P4E2 (1x PCIe x16, 1x PCIe x4) *GP4E1 (1x PCIe x16, 3x PCI) Support Extended Length of GPU Card *GP4E2 (1x PCIe x16, 1x PCIe x4) Support Extended Length of GPU Card	*P4E2 (1x PCIe x16, 1x PCIe x4) *GP4E2 (1x PCIe x16, 1x PCIe x4) support extended length of GPU card
<b>Other</b>		
<b>Internal USB</b>	1x Internal USB 2.0 header	
<b>Antenna</b>	4x antenna openings	
<b>Environment</b>		
<b>Operating Temperature (TBD)</b>	(AIHD10F Series with CPU FAN) 58W CPU: -25°C~65°C 65W CPU: -25°C~55°C 80W CPU: -25°C~45°C 95W CPU: -25°C~40°C (AIHD10 Series without CPU FAN) 35W CPU: -20°C~75°C	(AIHD10LF with CPU FAN) 58W CPU: -25°C~65°C 65W CPU: -25°C~55°C (AIHD10L without CPU FAN) 35W CPU: -20°C~75°C
<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)	
<b>Certification</b>		
<b>EMC</b>	CE FCC Class A	
<b>OS Support</b>		
<b>Windows</b>	Windows 10 64-bit Windows 10 IoT Windows 11 (AIC TBD)	
<b>Linux</b>	Linux	

## I/O Interfaces

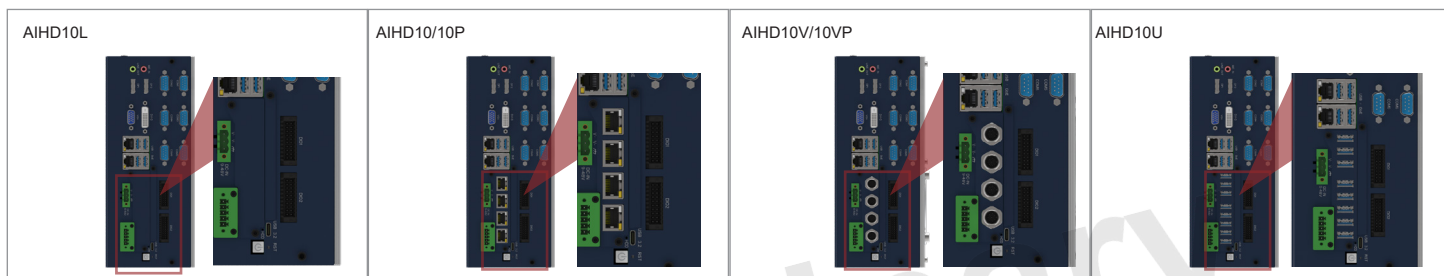


## Dimensions

Units: mm

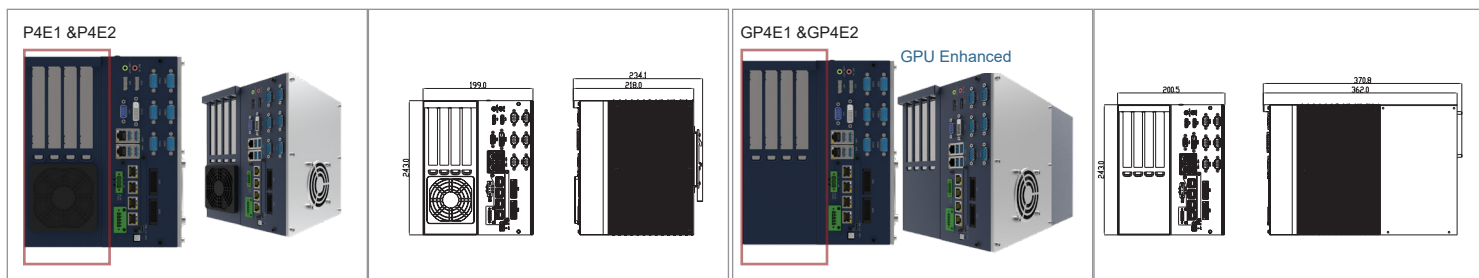


## I/O Comparison Chart



Model Name	DP	DVI	VGA	GbE (RJ45)	GbE / PoE (RJ45)	GbE (M12)	GbE/POE (M12)	GPIO	Isolated DIO	M.2 Key-M 2280	Mini-PCle	USB type A	USB type C	RS-232	RS-232 / 422 / 485
AIHD10				6	0	0	0			2	2	4			
AIHD10P				2	4	0	0			2	2	4			
AIHD10V	2	1	1	2	0	4	0	2	0	2	2	4	1	4	2
AIHD10VP				2	0	0	4			2	2	4			
AIHD10U				2	0	0	0			2	2	12			
AIHD10L				2	0	0	0			1	1	4			
AIHD10-i				6	0	0	0			2	2	4			
AIHD10P-i				2	4	0	0			2	2	4			
AIHD10V-i	2	1	1	2	0	4	0	0	2	2	2	4	1	4	2
AIHD10VP-i				2	0	0	4			2	2	4			
AIHD10U-i				2	0	0	0			2	2	12			
AIHD10L-i				2	0	0	0			1	1	4			

## Expansion Box Comparison Chart



Expansion Box Type	PCIe x16	PCIe x4	PCI	Fan kit	Available Model	support extended length of GPU card
P4E1	1	0	3	1	AIHD10-P/V/VP/U	N
P4E2	1	1	0	1	AIHD10-P/V/VP/U/L <sup>(1)</sup>	N
GP4E1	1	0	3	1	AIHD10-P/V/VP/U	Y
GP4E2	1	1	0	1	AIHD10-P/V/VP/U/L <sup>(2)</sup>	Y

note  
<sup>(1)</sup>,<sup>(2)</sup>:For P4E2 and GP4E2, AIHD10-L series only supports 1x PCIe x16, no PCIe x4.