

MODEL. I550-BI SERIES

Fanless Design Industrial Box PC

Introduction

I550-BI is a fanless, industrial-grade Box PC designed for stability in harsh environments, featuring a fully enclosed aluminum alloy chassis. It supports a wide range of Intel Core processors, including the 7th, 8th, 12th, 13th Generations, and the latest high-performance Intel Ultra Series. Connectivity is robust with four Intel Gigabit LAN ports, dual HDMI for 4K displays, and up to six COM ports for industrial automation. The system operates reliably 24/7 in temperatures ranging from -20℃ to 70℃ and includes protection against surges, pulses, and radiation. It is highly versatile, offering multiple mounting options like Rail Mount and supporting DC 9-36V power input with overvoltage protection.

Specification

Mother Board Specification

I550-BI Series				
Model	I550-BI(V1)		I550-BI(V2)	
CPU	i3-7100U/8130U 1215U/1315U i5-7200U/8250U 1235U/1335U i7-7500U/8550U 1255U/1355U	Ultra 5-125H Ultra 7-155H	i3-7100U/8130U 1215U/1315U i5-7200U/8250U 1235U/1335U i7-7500U/8550U 1255U/1355U	Ultra 5-125H Ultra 7-155H
Memory	1*DDR4 RAM Slot, Up to 32GB	1*DDR5 RAM Slot, Up to 48GB	1*DDR4 RAM Slot, Up to 32GB	1*DDR5 RAM Slot, Up to 48GB
Storage	1*M.2 NVME SSD			
Display	1*HDMI: Resolution up to 4096*2304@60Hz		2*HDMI: Resolution up to 4096*2304@60Hz	
Expansion	1*Mini PCIE + 1*M.2 Slots, Support 4G/5G and WIFI module			
Ethernet	4*Intel I210-AT LAN Chip (10 / 100 / 1000 Mbps, RJ-45 Type)			
USB	4*USB 3.2 (Type-A) + 2*USB 2.0 (Type-A)		4*USB 3.2 (Type-A)	
COM	2*RS-232 / 485 (DB9 Type)		2*RS-232 / 485+2*RS-232 (DB9 Type)	
Audio	1*Line-Out		1*Line-Out	
GPIO	8 ports GPIO (4*GPI+4*GPO)		None	

Fittings Information

RAM	DDR4	4GB / 8GB / 16GB / 32GB
	DDR5	4GB / 8GB / 16GB / 32GB / 48GB
Storage	M.2 NVME	128GB / 256GB / 512GB / 1TB / 2TB / 4TB
GSM Module	4G	4G+GPS
	5G	5G+GPS
WIFI Module	7260AC / 8260AC / AX210	
AI Module	26 / 32 Tops AI Computing Power Card	

Device Specification

Model	I550-BI(V1)	I550-BI(V2)
BIOS	AMI UEFI BIOS	
Power Input	DC 9-36V With Overvoltage Protection	
	Support Auto-Start	
	4 Pin Phoenix Terminal Type DC Plug	2 Pin Phoenix Terminal Type DC Plug
Watch Dog	Support	
Working Temperature	-20℃ - 70℃ , Support 24/7 Working	
Storage Temperature	-30℃ - 80℃	
Humidity	90% (20±50℃)	
Size	197mm*143mm*61.5mm	
Structure	Fully Enclosed Aluminum Alloy Material	
Heat dissipation	Fanless Design, Conduction Heat Dissipation	
	Fan Chassis Optional	
Installation	Desktop / Embedded / Wall / Rail Mount	
System	Windows and Linux	

Ordering Information

Model	CPU	LAN	USB	COM	Display	RAM	SSD	Expansion	Power
I550-BI(V1)	7th / 8th 12th / 13th	4	6	2*RS-232/485	1*HDMI	1*DDR 4 Up to 32GB	1*M.2 NVME	1*Mini PCIE 1*M.2	DC 9-36V
	Ultra		4			1*DDR 5 Up to 48GB			
I550-BI(V2)	7th / 8th 12th / 13th	4	4	2*RS-232/485 2*RS-232	2*HDMI	1*DDR 4 Up to 32GB	1*M.2 NVME	1*Mini PCIE 1*M.2	DC 9-36V
	Ultra		4			1*DDR 5 Up to 48GB			

CPU Information

CPU	Core	Threads	Frequency	Cache	Graphics	RAM
i3-7100U	2	4	2.40GHz	3 MB	HD Graphics 620	Max to 16GB for 1*DDR4 Slot
i5-7200U	2	4	2.50-3.10GHz	3 MB	HD Graphics 620	Max to 16GB for 1*DDR4 Slot
i7-7500U	2	4	2.70-3.50GHz	4 MB	HD Graphics 620	Max to 16GB for 1*DDR4 Slot
i3-8130U	2	4	2.20-3.40GHz	4 MB	UHD Graphics 620	Max to 16GB for 1*DDR4 Slot
i5-8250U	4	8	1.60-3.40GHz	6 MB	UHD Graphics 620	Max to 16GB for 1*DDR4 Slot
i7-8550U	4	8	1.80-4.00GHz	8 MB	UHD Graphics 620	Max to 16GB for 1*DDR4 Slot
i3-1215U	6	8	1.20-4.40GHz	10 MB	UHD Graphics	Max to 32GB for 1*DDR4 Slot
i5-1235U	10	12	1.30-4.40GHz	12 MB	Iris Xe Graphics	Max to 32GB for 1*DDR4 Slot
i7-1255U	10	12	1.70-4.70GHz	12 MB	Iris Xe Graphics	Max to 32GB for 1*DDR4 Slot
i3-1315U	6	8	1.20-4.50GHz	10 MB	UHD Graphics	Max to 32GB for 1*DDR4 Slot
i5-1335U	10	12	1.30-4.60GHz	12 MB	Iris Xe Graphics	Max to 32GB for 1*DDR4 Slot
i7-1355U	10	12	1.70-5.00GHz	12 MB	Iris Xe Graphics	Max to 32GB for 1*DDR4 Slot

CPU	Core	Threads	Frequency	Cache	Graphics	RAM
Ultra 5-125H (18 Tops)	14	18	1.20-4.50GHz	18 MB	Intel Arc graphics	Max to 48GB for 1*DDR5 Slot
Ultra 7-155H (18 Tops)	16	22	1.40-4.80GHz	24 MB	Intel Arc graphics	Max to 48GB for 1*DDR5 Slot

System Information

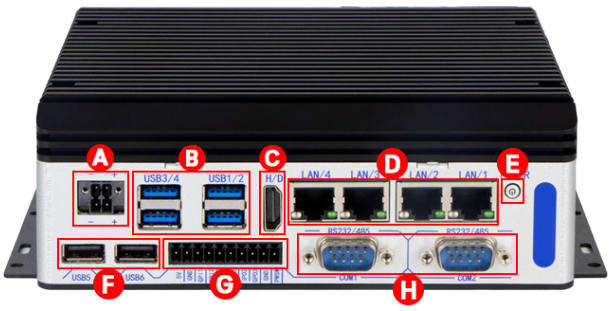
CPU	Specification
7th	Windows 7 / 10 and Linux
8th / 12th / 13th / Ultra	Windows 10 / 11 and Linux

Package List

Adapter	1*12V 10A adapter
Power Cable	1*Power Cable (The type is depends on the national standard of the buyer)

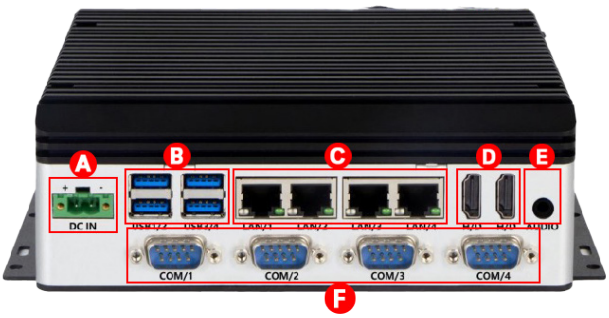
I/O Port

Model I550-BI(V1)



A : 1*DC POWER IN
B : 4*USB3.2
C : 1*HDMI
D : 4*LAN
E : 1*Power
F : 2*USB2.0
G : 1*GPIO
H : 2*COM

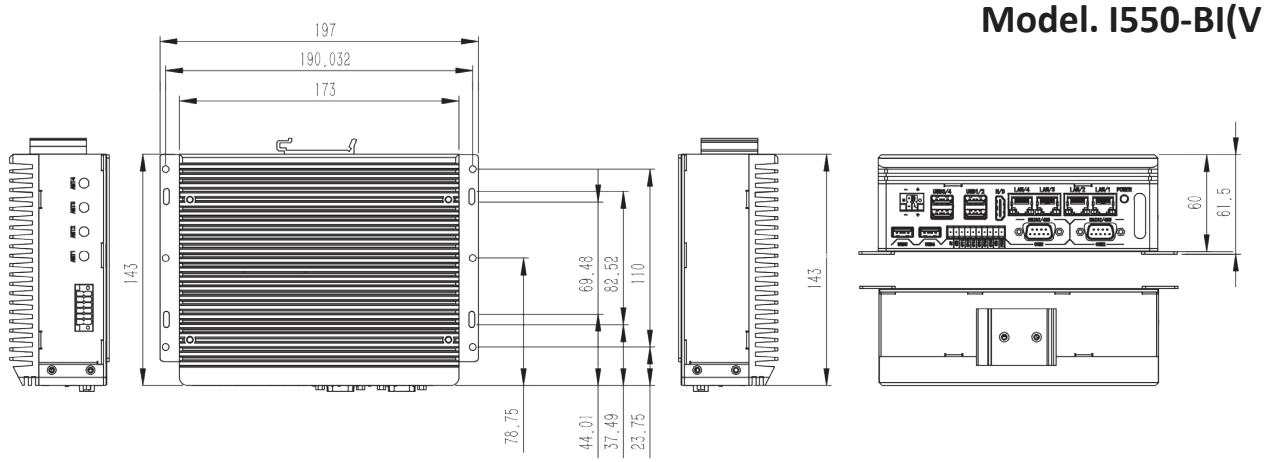
Model I550-BI(V2)



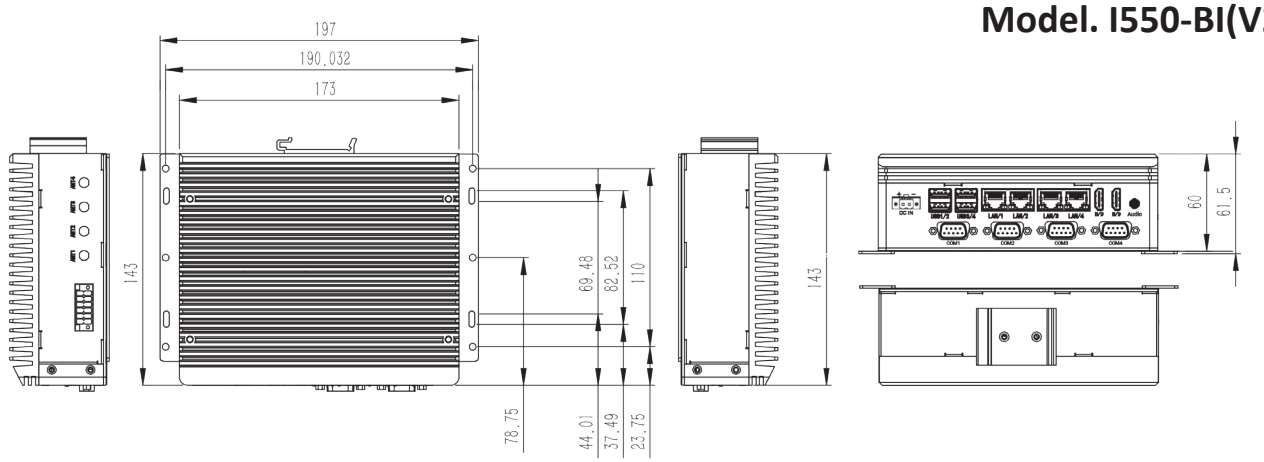
A : 1*DC POWER IN
B : 4*USB3.2
C : 4*LAN
D : 2*HDMI
E : 1*AUDIO
F : 4*COM

Dimensions

Model. I550-BI(V1)



Model. I550-BI(V2)



Applications



Factory Automation



Edge Computing



Machine Vision (AI)