

MODEL. I800-BI

Fanless Design Industrial Box PC

Introduction

I800-BI embedded fanless industrial Box pc supports multiple installation methods, integrated Intel 4-13th generation processors optional and it has strong scalability. It supports Windows / Linux operating system, onboard J1900/J6412/ 4-13th generation Core i3/i5/i7, supports 4G/5G Internet access function, meet communication requirements (need to add a module separately), supports Wifi, Bluetooth dual communication module (need to add a module separately), DC 12V-36V/DC 9-36V power input optional. Silent, Rugged, Dustproof, Vibration-Resistant, Wide-Temperature.

iDEETECH

I800-BI

INDUSTRIAL BOX PC

POWERFUL. RELIABLE. BUILT FOR INDUSTRY



All aluminum alloy heat dissipation

FANLESS COOLING LOW-NOISE DESIGN

The surface of the industrial computer adopts a striped grid pattern and is molded into a sealed, integrated structure, which ensures external air circulation and improves heat dissipation efficiency; the fanless design reduces dust accumulation.

CIRCULATING HEAT DISSIPATION
Efficient air circulation

LOW NOISE DESIGN
Silent • Reliable • Dust-free



TEMPERATURE

WITHSTANDS EXTREME TEMPERATURES:

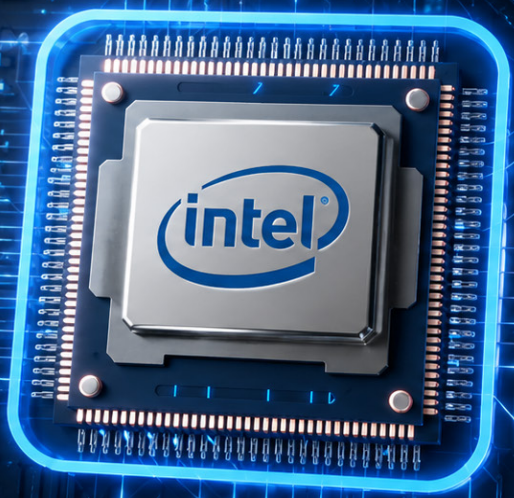
-20°C TO +70°C

WIDE TEMPERATURE -20°C TO 70°C | RUGGED & RELIABLE | DUST RESISTANT | ALL-ALUMINUM ALLOY | LONG-TERM STABILITY



Intel Power Chip
Stable Operation
Faster Than One Step

Through The Controlled High Temperature Test To Test The Product To Adapt To High And Low Temperature, Even In The Harsh Environment Is Not Afraid.



24/7 Reliability Testing

Engineered for Continuous Industrial Operation

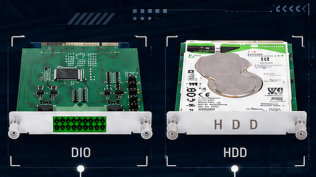
Every Industrial Mini PC undergoes 72 hours of continuous burn-in and full-load testing before shipment, ensuring exceptional reliability, thermal stability, and long-term performance in demanding industrial environments.



- 72 HOURS — 72-Hour Burn-in Test
- Full-Load Stress Testing
- Thermal Stability Assurance
- Built for Long-Term Industrial Reliability

MULTIPLE EXPANSION CARDS ARE AVAILABLE

FLEXIBLE EXPANSION. LIMITLESS POSSIBILITIES.



EXPANSION SLOT
Plug-and-Play Expansion
Boost Functionality Instantly.





Classis with Fan and Fanless

Modern Design | High Performance | Flexible Connectivity

FAN DESIGN

- Optimized Cooling System
- Stable Performance
- Ideal for High Workload



FANLESS DESIGN

- Silent Operation
- Dust Resistant
- Reliable in Demanding Environments



INSTALLATION

3 INSTALLATION OPTIONS

DESKTOP / EMBEDDED / WALL-MOUNTED

DESKTOP

Place on a desk or flat surface for easy access and maintenance.



EMBEDDED

Integrate into cabinets, kiosks, or enclosures for a clean and space-saving solution.



WALL-MOUNTED

Mount on walls or structures securely with the included mounting brackets.



POWERFUL COMPATIBILITY SYSTEM

Compatible with Windows 7 / Windows 8 / Windows 10 / Linux.









Specification

Mother Board Specification

Model	I800-BI		
CPU	Celeron J1900 i3-4010U i5-4260U i7-4650U	Celeron J6412 i3-7100U / 8130U / 10110U i5-7200U / 8250U / 10210U i7-7500U / 8550U / 10710U	N95 / N100 i3-1215U / 1315U i5-1235U / 1335U i7-1255U / 1270P / 1355U
Memory	[1] 2*DDR3 RAM Slots, Up to 16GB	[2] 2*DDR4 RAM Slots, Up to 32GB	2*DDR4 RAM Slots, Up to 64GB
Storage	1*MSATA SSD Slot + 1*SATA SSD Slots		1*M.2 NVME SSD Slot
Display	[3] 1*HDMI: Resolution up to 4096*2106@60Hz 1*HDMI: Resolution up to 1920*1080@60Hz (Optional, J1900 is Not Support)		
Expansion	1*Mini PCIE Slot		2*M.2 Slots
	Support 4G / 5G and WIFI Module		
Ethernet	2*Intel LAN Chip (10 / 100 / 1000 Mbps, RJ-45 Type)		
USB	4*USB 3.0 (Type-A) + 1*USB 2.0 (Type-A, Built-in)		
COM	2*RS-232 / 422 / 485 (DB9 type) + 4*RS-232 (DB9 type)		
Audio	1*Line-Out		
Daughter Card	Support expansion more I/O interfaces and functional slots		

Note:

[1] : The maximum memory capacity and the maximum capacity per strip supported by this motherboard depend on the CPU. J1900 CPU only supports one RAM slot, up to 8GB
[2] : The maximum memory capacity and the maximum capacity per strip supported by this motherboard depend on the CPU.
[3] : The maximum resolution and frame rate of the display interface output depends on the CPU.

Fittings Information

RAM	DDR3	4GB / 8GB
	DDR4	4GB / 8GB / 16GB / 32GB
Storage	MSATA	128GB / 256GB / 512GB / 1TB
	M.2 NVME / SATA	128GB / 256GB / 512GB / 1TB / 2TB / 4TB
	SATA	120GB / 128GB / 240GB / 256GB / 480GB / 512GB / 960GB / 1TB / 2TB / 4TB
GSM Module	4G	4G+GPS
	5G	5G+GPS
WIFI Module	7260AC /8260AC / AX210	

Device Specification

BIOS	AMI UEFI BIOS
Power Input	DC 9-36V With Overvoltage Protection
	Support Auto-Start
	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	285mm*160mm*50mm
Structure	Fully Enclosed Aluminum Alloy Material
Heat dissipation	Fanless Design, Conduction Heat Dissipation
	Fan Chassis Optional
Installation	Desktop / Embedded / Wall-Mounted
System	Windows and Linux

Daughter Card Specification

COM Port-2	2*RS-232 / 485 (DB9 type)
COM Port-6	4*RS-232 / 485+2*RS-232 (Phoenix terminal type)
Ethernet Port-2	2*Intel i211V LAN Chip (RJ-45 type)
Ethernet Port-4	4*Intel i211V LAN Chip (RJ-45 type,POE function optional)
10G Ethernet Port-2	2*10Gbps Ethernet Ports
USB Port-4	4*USB 3.0 (Type-A)
GPIO Port-14	14 ports GPIO, 7*GPI+7*GPO, 0-3.3V (Phoenix terminal type)
Mini PCIE Slot-2	2*Mini PCIE slots, Support 4G and WIFI module
M.2 Slot-1	1*M.2 Key-B slot, Support 5G module
M.2 NVME SSD Slot-1	1*M.2 NVME SSD slot
SATA SSD Slot-1	1*SATA 3.0 SSD Slot, Support RAID 1
CAN Port-2	2*CAN interfaces (Phoenix terminal type)
UPS battery	1.2AH or 4.8AH
DIDO Port-16	16 ports DIDO, 8*DI+8*DO, 24V, Isolation (Phoenix terminal type) Comes with 4*RS-485 COM ports (Phoenix terminal type)


6-way COM



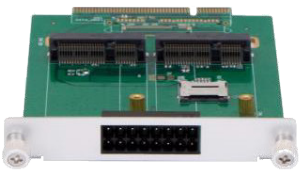
2.5-inch SSD



UPS power supply

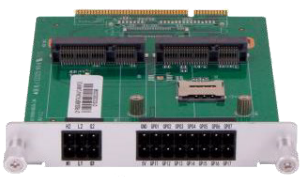

4-channel USB

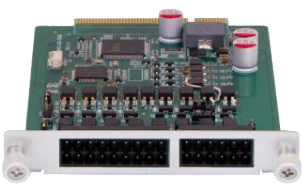

2-channel COM


14 GPI0 channels

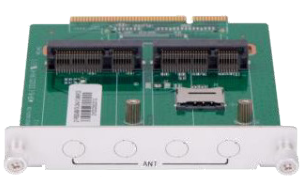

Dual Gigabit Ethernet ports


Four Gigabit Ethernet port


CAN+GPIO


DIDO


M.2 SSD


4G WIFI GPS

Ordering Information

Model	CPU	LAN	USB	COM	Display	RAM	SSD	Expansion	Power
I800-BI	J1900	2*I210-AT	1*3.0 3*2.0	2*RS-232/422/485 4*RS-232	1*HDMI	1*DDR 3 Up to 8GB	1*MSATA 1*SATA	1*Mini PCIE	DC 9-36V
	4th		4*3.0			2*DDR 3 Up to 16GB			
	J6412					2*DDR 4 Up to 32GB			
	7th/8th					2*DDR 4 Up to 32GB			
	8th/10th					2*DDR 4 Up to 64GB			
	N95/N100	2*I225V	3*3.0 1*2.0			1*DDR 4 Up to 16GB	1*M.2 SATA	1*M.2 1*Mini PCIE	
	12th/13th	2*I210-AT	4*3.0	4*RS-232/422/485 2*RS-232		2*DDR 4 Up to 64GB	1*M.2 NVME	1*Mini PCIE 1*M.2	

CPU Information

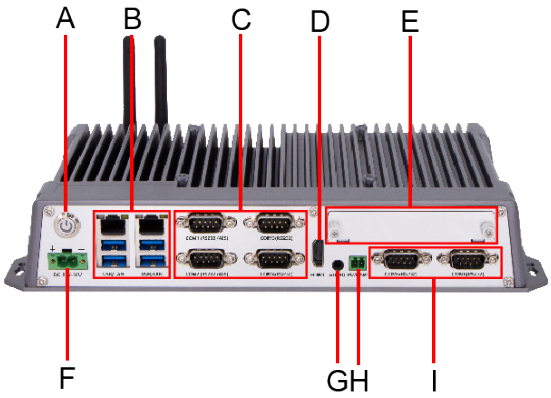
CPU	Core	Threads	Frequency	Cache	Graphics	RAM
Celeron J1900	4	4	2.00-2.42GHz	2 MB	HD Graphics	Max to 8GB for 1*DDR3 Slot
Celeron J6412	4	4	2.00-2.60GHz	1.5 MB	UHD Graphics	Max to 32GB for 2*DDR4 Slots
N95	4	4	3.40GHz	6 MB	UHD Graphics	Max to 16GB for 1*DDR4 Slot
N100	4	4	3.40GHz	6 MB	UHD Graphics	Max to 16GB for 1*DDR4 Slot
i3-4010U	2	4	1.70GHz	3 MB	HD Graphics 4400	Max to 16GB for 2*DDR3 Slots
i5-4260U	2	4	1.40-2.70GHZ	3 MB	HD Graphics 5000	Max to 16GB for 2*DDR3 Slots
i7-4650U	2	4	1.70-3.30GHz	4 MB	HD Graphics 5000	Max to 16GB for 2*DDR3 Slots
i3-7100U	2	4	2.40GHz	3 MB	HD Graphics 620	Max to 32GB for 2*DDR4 Slots
i5-7200U	2	4	2.50-3.10GHz	3 MB	HD Graphics 620	Max to 32GB for 2*DDR4 Slots
i7-7500U	2	4	2.70-3.50GHz	4 MB	HD Graphics 620	Max to 32GB for 2*DDR4 Slots

CPU	Core	Threads	Frequency	Cache	Graphics	RAM
i3-8130U	2	4	2.20-3.40GHz	4 MB	HD Graphics 620	Max to 32GB for 2*DDR4 Slots
i5-8250U	4	8	1.60-3.40GHz	6 MB	UHD Graphics 620	Max to 32GB for 2*DDR4 Slots
i7-8550U	4	8	1.80-4.00GHz	8 MB	UHD Graphics 620	Max to 32GB for 2*DDR4 Slots
i3-10110U	2	4	2.10-4.10GHz	4 MB	UHD Graphics	Max to 64GB for 2*DDR4 Slots
i5-10210U	4	8	1.60-4.20GHz	6 MB	UHD Graphics	Max to 64GB for 2*DDR4 Slots
i7-10710U	6	12	1.10-4.70GHz	12 MB	UHD Graphics	Max to 64GB for 2*DDR4 Slots
i3-1215U	6	8	1.20-4.40GHz	10 MB	UHD Graphics	Max to 64GB for 2*DDR4 Slots
i5-1235U	10	12	1.30-4.40GHz	12 MB	Iris Xe Graphics	Max to 64GB for 2*DDR4 Slots
i7-1255U	10	12	1.70-4.70GHz	12 MB	Iris Xe Graphics	Max to 64GB for 2*DDR4 Slots
i7-1270P	12	16	2.20-4.80GHz	18 MB	Iris Xe Graphics	Max to 64GB for 2*DDR4 Slots
i3-1315U	6	8	1.20-4.50GHz	10 MB	UHD Graphics	Max to 64GB for 2*DDR4 Slots
i5-1335U	10	12	1.30-4.60GHz	12 MB	Iris Xe Graphics	Max to 64GB for 2*DDR4 Slots
i7-1355U	10	12	1.70-5.00GHz	12 MB	Iris Xe Graphics	Max to 64GB for 2*DDR4 Slots

System Information

CPU	Specification
J1900	Windows 7 / 10 and Linux
4th / 7th	Windows 7 / 10 and Linux
J6412 / N95 / N100	Windows 10 / 11 and Linux
8th / 10th / 12th / 13th	Windows 10 / 11 and Linux

I/O Port





A : 1*Power
B : 4*USB 3.0 + 2*LAN
C : 2*COM(RS-232/422/485) + 2*COM (RS-232)
D : 1*HDMI
E : 1*Daughter Card

F : 1*DC POWER IN
G : 1*Audio
H : 1*Power Sw
I : 1*2*COM (RS-232)
J : 1*ANT1-2

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Fanless Design



Fan Design

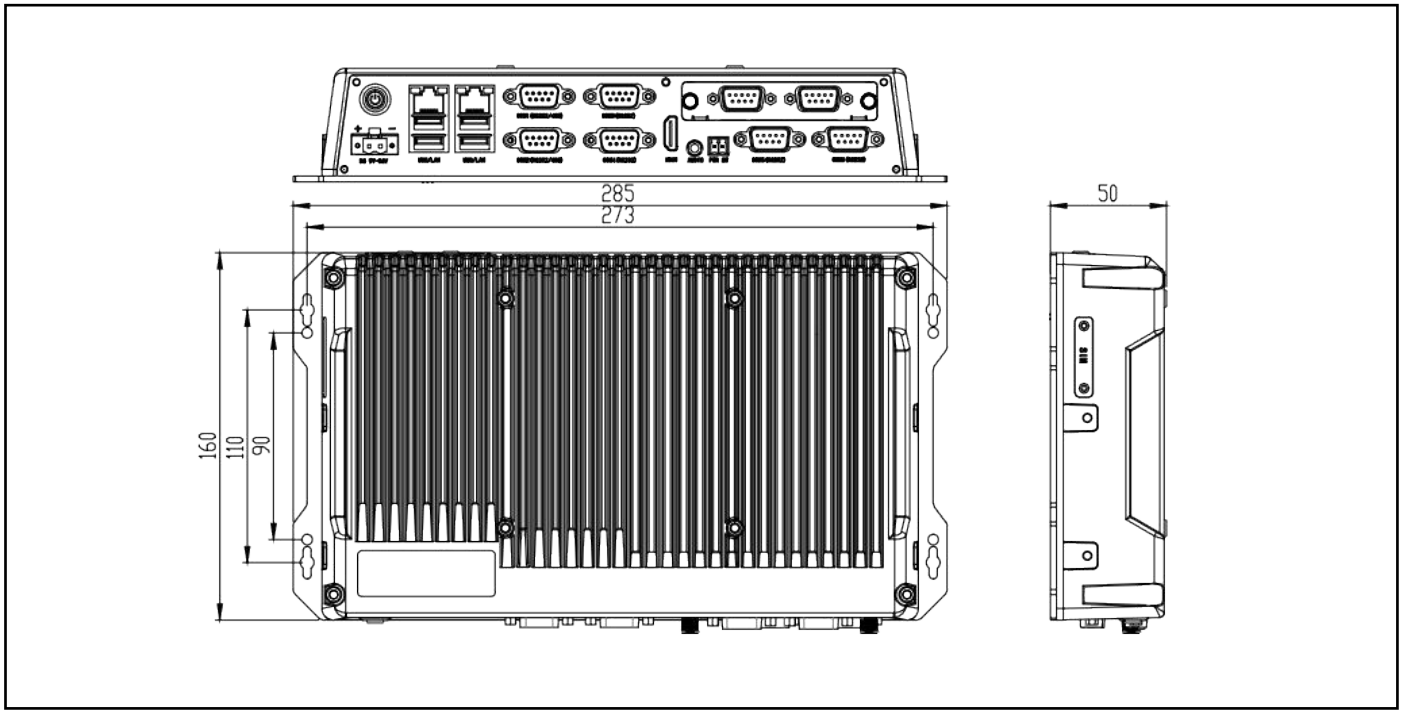
Dual HDMI Version



Package List

Adapter	1*12V 5A adapter
Power Cable	1*Power Cable (The type is depends on the national standard of the buyer)
Terminal	2 Pin phoenix terminal for Power Switch

Dimensions



Applications



Industrial Factory



Smart Warehousing



Security & Surveillance