USER MANUAL

Thinvent® Industrial PC IPC1

IPC1-r5_7-32_32-m1024-19_3-m-Thinux-0



Edition November 2026

Serial number: _____

Thinvent Technologies Private Limited · www.thinvent.in

Contents

1. Before you start	3
2. What is in the box	3
3. Specifications	3
4. Ports and controls	4
5. Setting up	4
6. Operating system	4
7. Inside the computer: the motherboard	5
8. Jumpers and switches	6
9. BIOS setup	6
10. Care	6
11. Troubleshooting	6
12. Support	6

1. BEFORE YOU START

The IPC1 is a fanless industrial PC in a finned aluminium housing, 199.5 mm × 181.5 mm × 34.5 mm. It has no fan, so it runs silently, and it is built for 24/7/365 operation. It mounts on a wall with the VESA mount, and Thinvent states that it also supports DIN rail mounting. Customers use it for industrial automation, process control, digital signage and edge computing.

- Keep the vents clear, and keep the computer away from water and direct sunlight.
- Use only the power adapter supplied with the IPC1. A device run on a different adapter can lose its warranty.

Files for this computer and the latest edition of this manual are on the Thinvent Support Downloads page: www.thinvent.in/support/downloads. Enter the serial number or the order number of your computer.

2. WHAT IS IN THE BOX

- Thinvent® Industrial PC IPC1
- Power adapter
- VESA mount

3. SPECIFICATIONS

Processing

Generation	7000 Series
Series	Ryzen 5
Processor Brand	AMD
Processor Model	7430U
Cores	6
Max Frequency	4.3 GHz
Cache	16 MB
Main Memory	64 GB
SSD Storage	1024 GB

Display

HDMI	1
VGA	1

Audio

Speaker Out	1
Mic In	1
Front Speaker Out	1
Front Mic In	1

Connectivity

USB 3.2 Gen 1	2
USB 2.0	2
Front USB 2.0	4

Networking

Ethernet	1000 Mbps
Wireless Networking	Wi-Fi 5 (802.11ac), dual band

Power

DC Voltage	19 Volts
DC Current	3 Amps
Power Input	100~240 Volts AC, 50~60 Hz, 1.5 Amps maximum
Cable Length	2 Metre

Environmental

Operating Temperature	0°C ~ 40°C
Operating Humidity	20% ~ 80% RH, non condensing
Certifications	BIS, RoHS, ISO

Physical

Form Factor	Industrial PC
Thermal Design	Fanless Passive Cooling
Dimensions	199.5mm × 181.5mm × 34.5mm
Packing Dimensions	319mm × 224mm × 85mm
Housing Material	Aluminium
Housing Finish	Powder Coated Base, Anodised Cover
Housing Colour	Black
Net and Gross Weight	0.94kg, 1.17kg

Accessories

VESA Mount	1

Operating System

Operating System	Thinvent® Thinux™ Embedded Linux
OS Features	Chromium and Mozilla Firefox browsers. RDP 10 (RemoteFX, H.264/AVC), Putty and SSH for remote display. Browser based remote management. VNC shadowing. Java, Python and glibc based location application support. LibreOffice and PDF viewer. Multimedia player with MPEG4 support. SIP video and voice over IP.

4. PORTS AND CONTROLS

Front

From left to right:

#	Port	Description
1	USB 2.0 ports (4)	Four USB 2.0 ports for a keyboard, a mouse or a USB stick.
2	Speaker out	3.5 mm audio output on the front panel.
3	Mic in	3.5 mm microphone input on the front panel.

Rear

From left to right, seen from the back:

#	Port	Description
1	DC-IN	DC power jack, 19 V
2	HDMI	HDMI 1.4 port
3	VGA	VGA port. The position can be fitted with a COM port or a DisplayPort instead
4	USB 2.0	Stacked USB 2.0 ports
5	RJ45	Ethernet port, Realtek 8111M, 100 Mbps and 1000 Mbps
6	USB 3.2 Gen1	Stacked USB 3.2 Gen1 ports
7	Audio 1	Pink audio jack
8	Audio 2	Green audio jack

5. SETTING UP

Connect and switch on

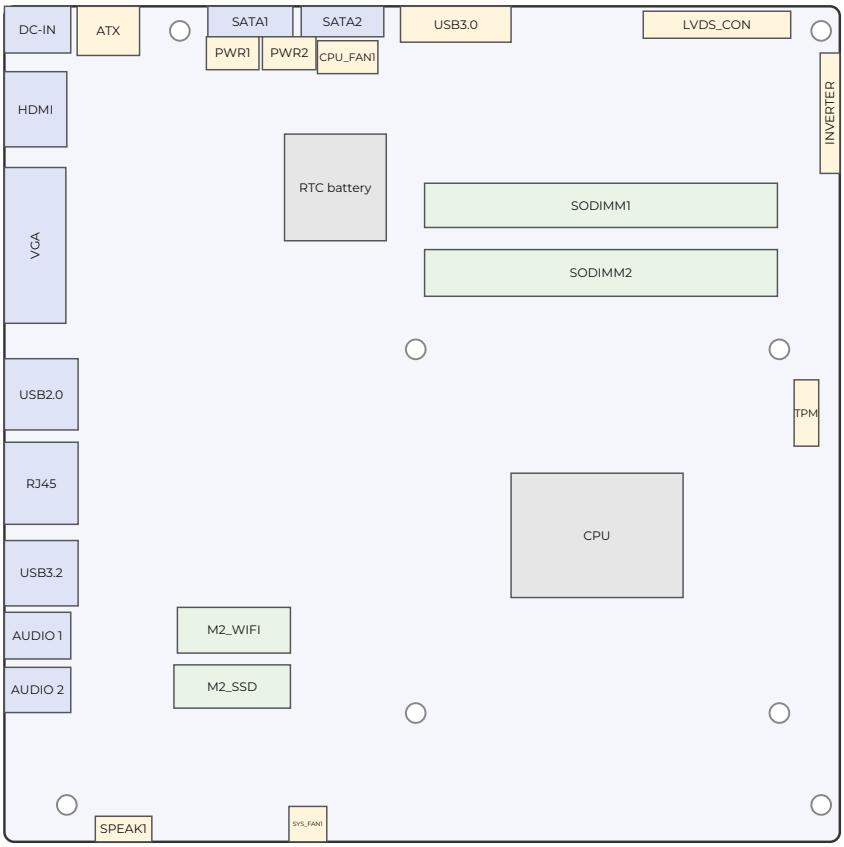
1. Connect the HDMI cable or the VGA cable from the IPC1 to the screen.
2. Connect the keyboard, the mouse and any other device.
3. Connect the power adapter to the IPC1 and plug it into the mains.
4. Switch on the screen and wait for the IPC1 to start.

6. OPERATING SYSTEM

This computer comes with Thinvent® Thinux™ Embedded Linux.

The Thinux Embedded Linux User Manual on the Support Downloads page describes the Thinux desktop, the remote desktop connections and the settings.

7. INSIDE THE COMPUTER: THE MOTHERBOARD



170 mm × 170 mm

Component side of the board. Positions are approximate.

Label	Connector or component
CPU	AMD Ryzen 5 7430U
SODIMM1	DDR4 SO-DIMM slot
SODIMM2	DDR4 SO-DIMM slot
RTC battery	RTC battery holder with its coin cell
SATA1	SATA 6 Gb/s connector
SATA2	SATA 6 Gb/s connector
PWR1	SATA_PWR connector, 4 pins, for the first SATA drive
PWR2	SATA_PWR connector, 4 pins, for the second SATA drive
USB3.0	USB 3.0 header, 2 x 10 pins
LVDS_CON	LVDS screen header, 2 x 15 pins
INVERTER	Backlight header, 1 x 6 pins
TPM	TPM header, 2 × 7 pins
M2_WIFI	M.2 Key-E socket for a 2230 wireless module
M2_SSD	M.2 Key-M socket for a 2242 or 2280 SATA or PCIe 3.0 SSD
SPEAK1	Speaker header, 1 x 4 pins
ATX	4-pin ATX power connector, fitted in place of the DC jack
DC-IN	DC power jack, 19 V
HDMI	HDMI 1.4 port
VGA	VGA port
USB2.0	Stacked USB 2.0 ports
RJ45	RJ45 Ethernet port
USB3.2	Stacked USB 3.2 Gen1 ports
AUDIO 1	Pink 3.5 mm audio jack
AUDIO 2	Green 3.5 mm audio jack

8. JUMPERS AND SWITCHES

LCD_VOL_SEL: Supply voltage of the LVDS screen

Setting	Function
3.3 V	Screen supply 3.3 V
5 V	Screen supply 5 V (default)
12 V	Screen supply 12 V

INV_VOL_SEL: Backlight voltage

Setting	Function
12 V	Backlight supply 12 V (default)
19 V	Backlight supply 19 V

9. BIOS SETUP

Open the Save & Exit menu to save the settings and restart.

Updating the BIOS

> Keep the power connected during a BIOS update. A power cut during the update leaves the board unable to start.

1. The Thinvent Support Downloads page does not have a BIOS file for this board.
2. Contact Thinvent support with the serial number of your computer and ask for a BIOS file. The contact details are in the Support section of this manual.
3. Thinvent support sends the BIOS file for your board with its instructions. Follow those instructions.
4. Keep the power adapter connected until the update finishes.

Other files for this computer

These files are on the Support Downloads page, www.thinvent.in/support/downloads.

File	Kind	Version
Thinux Embedded Linux API	manual	1
Thinux Embedded Linux User Manual	manual	1.0
Thinux UTS manual	manual	2023
Thinux manual	manual	2

10. CARE

- Keep the IPC1 in a place where the room temperature stays between 0°C and 40°C and the humidity stays between 20% and 80% RH, non condensing.

11. TROUBLESHOOTING

The IPC1 is on but the screen stays blank

1. Switch off the IPC1 and unplug the power adapter.
2. Remove every cable from the IPC1.
3. Connect the HDMI cable first, then the power adapter. Do not connect the keyboard and mouse yet.
4. If the screen stays blank, connect a different HDMI cable, or connect the screen to the VGA port with a VGA cable.
5. If the screen is still blank with a second cable, contact Thinvent support with the serial number of the IPC1.

The screen goes on and off and the red light blinks

1. Remove all cables from the IPC1.
2. Connect the HDMI cable, then the power adapter, and check the screen.
3. If the screen still goes on and off, record a video of the screen and the light and send it to Thinvent support. Thinvent support then asks you to send the IPC1 with its power adapter for repair.

12. SUPPORT

Support Downloads	www.thinvent.in/support/downloads
Email	support@thinvent.in
Phone	+91-11-411-71494
WhatsApp	+91 9990344247

Thinvent® is a registered trademark of Thinvent Technologies Private Limited. Intel, Core, Celeron, AMD Ryzen, Microsoft and Windows are trademarks of their owners. The information in this manual is subject to change without notice.