



EHL-J6412 User Manual

Issue 1.0

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Security Guidance

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- No part of this user manual may be reproduced, modified, reprinted, distributed, or published in any form without prior written permission from CoreIPC.
- To ensure proper and safe use of the CoreIPC EHL-J6412, please read this user manual carefully before installation and operation.
- Please read all safety instructions and product specifications carefully before using the product.
- When contacting CoreIPC for technical support, please provide the product model, configuration, and other relevant product information for identification.

Basic Safety Tips

1. Before using this product, please read this manual carefully and keep it for future reference.
2. Make sure the power outlet is easily accessible when using the device.
3. Before connecting the device to a power outlet, verify that the power supply voltage meets the product requirements.
4. Route the power cord properly to avoid tripping hazards, and do not place any heavy objects on the power cord.
5. Before cleaning the device, disconnect the power cord from the power outlet. Do not use liquid cleaners or spray cleaners directly on the device. Use a dry or slightly damp cloth instead.
6. Before installation, make sure the device is placed on a stable and reliable surface to prevent accidental drops or damage.
7. If the device will not be used for an extended period, disconnect it from the power outlet to avoid possible damage caused by excessive voltage fluctuations.
8. Do not store the device outside the specified storage temperature range of -30°C to 70°C.
9. Do not allow any liquid to enter the device, as this may cause a short circuit, electric shock, or fire.

10. Do not open or disassemble the device by yourself. For safety reasons, servicing should only be performed by qualified technical personnel or authorized engineers.
11. Before connecting or disconnecting external devices, cables, or optional modules, it is recommended to power off the system first.

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Ordering Information

Model	Processor	Memory	Storage	Wireless / Cellular
EHL-J6412 VER1.0	Intel® Celeron® J6412 2.0 GHz	1 × SO-DIMM DDR4-3200, Max. 32 GB	M.2 Key-M 2242/2280 SATA SSD	M.2 Key-E 2230 Wi-Fi/BT; 4G listed via Key-M; 5G by jumper

Note: This manual is prepared only from the supplied EHL-J6412 VER1.0 product-page information. The RJ45 RS232 pinout is not provided in the source images and is therefore not reproduced here.

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1. Product Description

The EHL-J6412 VER1.0 is a compact fanless Box PC designed for embedded and industrial applications. It is powered by an Intel® Celeron® J6412 processor at 2.0 GHz and combines multi-LAN networking, dual HDMI display, USB connectivity, serial communication, wireless expansion and SATA SSD storage in a 130 × 130 × 42 mm aluminum enclosure.

The system provides four Intel® I225/I226 2.5GbE RJ45 ports, two HDMI 2.0 outputs, two USB 3.1 ports, two USB 2.0 ports and one RJ45-form-factor RS232 serial port. The source specifications state that serial redirection is supported by default at 115200 baud.

Memory is provided through one DDR4-3200 SO-DIMM slot with a listed maximum capacity of 32 GB. Storage uses an M.2 Key-M 2242/2280 SATA SSD slot. Wireless expansion is provided through an M.2 Key-E 2230 slot for Wi-Fi / Bluetooth.

The source page also lists 4G-module compatibility through the M.2 Key-M interface and states that 5G is controlled by a jumper. Because the same source also identifies the Key-M interface as the SATA SSD slot, the required storage/cellular configuration should be confirmed before ordering.

The main features of the EHL-J6412 VER1.0 are as follows:

- Intel® Celeron® J6412 processor, 2.0 GHz
- 4 × Intel® I225/I226 2.5GbE RJ45 LAN ports
- 2 × HDMI 2.0 outputs, up to 4K @ 60 Hz
- 2 × USB 3.1 + 2 × USB 2.0
- 1 × RJ45-form-factor RS232 serial port; default serial redirection at 115200 baud
- 1 × DDR4-3200 SO-DIMM slot, maximum 32 GB
- M.2 Key-M 2242/2280 SATA SSD slot
- M.2 Key-E 2230 slot supporting Wi-Fi / Bluetooth
- 4G module compatibility listed via M.2 Key-M; 5G controlled by jumper
- Windows 10 / Windows 11 / Linux
- DC 12 V input, 5.5 × 2.5 mm DC-IN
- Wall-mount installation with rear bracket

2. Product Images



LAN / Serial / Power I/O View

4 × 2.5G LAN, 1 × RJ45-form-factor RS232 serial port and 12 V DC input



Display / USB / Control I/O View

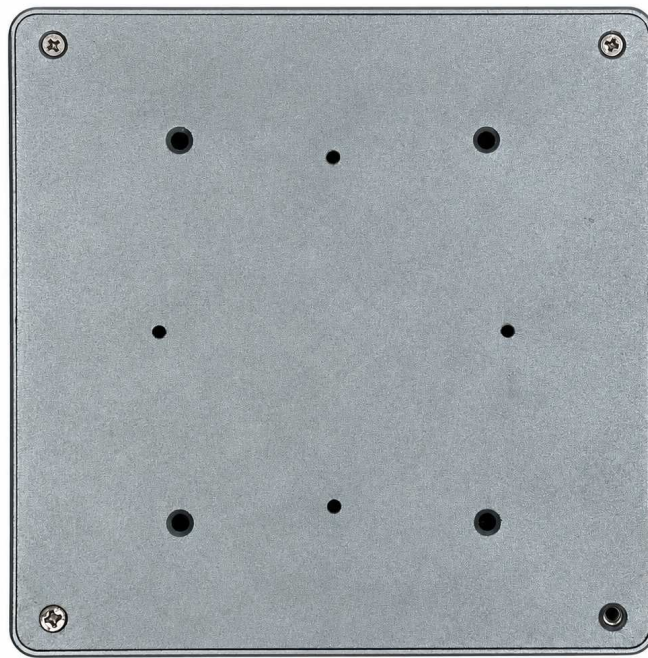
2 × HDMI 2.0, 2 × USB 3.1, 2 × USB 2.0, antenna openings, status indicators and power button



Slide View



Top View



Bottom View

3. Chassis Specifications

Model	EHL-J6412 VER1.0
Product Type	Box PC
Chassis Dimensions	130 × 130 × 42 mm
PCB Dimensions	120 × 120 mm
Mounting	Wall mount with rear bracket

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4. System Configuration

Configuration	Specification
Product Model	EHL-J6412 VER1.0
Product Type	Box PC
Processor	Intel® Celeron® J6412 2.0 GHz
Processor Options	N/A
Memory Configuration	1 × SO-DIMM DDR4 3200 MHz, Max. 32 GB
Storage Configuration	M.2 Key-M 2242/2280 SATA SSD slot
Display Interface	2 × HDMI 2.0, Max. 4K 60 Hz
LAN	4 × RJ45 Intel® I225/I226 2.5G LAN
USB	2 × USB 3.1, 2 × USB 2.0
Serial Ports	1 × RS232 RJ45 serial port; default serial redirection support at 115200
RS485	N/A
Wireless	M.2 Key-E 2230 slot supporting Wi-Fi / Bluetooth
Cellular Network	4G module compatible via M.2 Key-M slot; 5G controlled by jumper
GPS	N/A
GPIO	N/A
Expansion	M.2 Key-E 2230 slot; M.2 Key-M 2242/2280 SATA SSD slot
Mounting	Wall mount with rear bracket
Cooling Design	N/A in source specification table
Power Input	DC 12 V, 5.5 × 2.5 mm DC-IN
Power Features	N/A
Operating Temperature	-20°C to 60°C
Storage Temperature	-30°C to 70°C
Humidity	0-95% RH, non-condensing
Operating System	Windows 10 / Windows 11 / Linux
Dimensions	Chassis: 130 × 130 × 42 mm; PCB: 120 × 120 mm

Configuration Note:

The supplied specifications list “Cooling Design” as N/A, while the product images and captions describe the unit as a fanless industrial Box PC with a ribbed aluminum heat-dissipation enclosure. RS485, GPS and GPIO are listed as N/A.

5. Interface Details

Rear I/O

Interface	Description	Interface	Description
LAN1 / LAN2	Intel® I225/I226 2.5G LAN	LAN3 / LAN4	Intel® I225/I226 2.5G LAN
Serial	1 × RS232 RJ45	Power	DC 12 V, 5.5 × 2.5 mm
Serial Redirection	Default support at 115200	RS485	N/A

Front I/O

Interface	Description	Interface	Description
HDMI	2 × HDMI 2.0, up to 4K 60 Hz	USB 3.1	2 × USB 3.1
USB 2.0	2 × USB 2.0	Wireless	Antenna openings; M.2 Key-E 2230 Wi-Fi/BT
Power Button	1 × power button	Indicators	Front-panel status indicators shown in product image

6. Dimensions

Chassis: 130 × 130 × 42 mm | PCB: 120 × 120 mm | Mounting: Wall mount
with rear bracket

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7. Warranty

CoreIPC provides the original purchaser with a one-year limited warranty from the date of purchase.

During the warranty period, if the product is found to be defective under normal use, CoreIPC will provide repair or replacement service free of charge. The warranty does not cover products repaired or modified by unauthorized personnel, or damage caused by improper use, accidents, disasters, or incorrect installation.

For products outside the warranty period, repair service may still be available, and material and labor charges may apply. Please contact your CoreIPC sales representative for detailed service information.

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