

CoreIPC

EHL-J6412

Fanless Box PC Datasheet

4 x 2.5G LAN | Dual HDMI | RS232 RJ45

Document	Datasheet
Model	EHL-J6412 VER1.0
Issue	1.0
Product Type	Fanless Box PC
Website	www.CoreIPC.com

This datasheet is prepared based on EHL-J6412 User Manual Issue 1.0.

1. Product Overview

The EHL-J6412 VER1.0 is a compact CoreIPC fanless Box PC designed for embedded and industrial applications. It integrates an Intel® Celeron® J6412 processor, DDR4 memory, four Intel® I225/I226 2.5GbE LAN ports, dual HDMI 2.0 display outputs, USB connectivity, one RJ45-form-factor RS232 serial port, M.2 storage and wireless expansion, and 12 V DC input in a 130 x 130 x 42 mm aluminum enclosure.

2. Key Features

- Intel® Celeron® J6412 processor, 2.0 GHz.
- 1 x DDR4-3200 SO-DIMM slot, maximum 32 GB.
- M.2 Key-M 2242/2280 SATA SSD storage.
- 4 x RJ45 Intel® I225/I226 2.5GbE LAN ports.
- 2 x HDMI 2.0 outputs, up to 4K @ 60 Hz.
- 2 x USB 3.1 + 2 x USB 2.0.
- 1 x RJ45-form-factor RS232 serial port; default serial redirection support at 115200 baud.
- M.2 Key-E 2230 slot supporting Wi-Fi / Bluetooth; the source manual also lists 4G via M.2 Key-M and 5G controlled by jumper.
- DC 12 V input, 5.5 x 2.5 mm DC-IN; Windows 10 / Windows 11 / Linux.
- 130 x 130 x 42 mm chassis, 120 x 120 mm PCB; wall-mount installation with rear bracket; operating temperature -20°C to 60°C.

3. Technical Specifications

Category	Specification
Product Model	EHL-J6412 VER1.0
Processor	Intel® Celeron® J6412, 2.0 GHz.
Memory	1 x SO-DIMM DDR4-3200; maximum 32 GB.
Storage	1 x M.2 Key-M 2242/2280 SATA SSD slot.
Display	2 x HDMI 2.0; up to 4K @ 60 Hz.
Ethernet	4 x RJ45 Intel® I225/I226 2.5GbE LAN.
USB	2 x USB 3.1 + 2 x USB 2.0.
Serial	1 x RS232 RJ45 serial port; default serial redirection support at 115200 baud.
RS485	N/A.
Wireless	M.2 Key-E 2230 slot supporting Wi-Fi / Bluetooth.
Cellular	4G module compatible via M.2 Key-M slot; 5G controlled by jumper, as listed in the source manual.
GPS / GPIO	N/A / N/A.
Power Input	DC 12 V, 5.5 x 2.5 mm DC-IN.
Operating System	Windows 10 / Windows 11 / Linux.
Operating Temperature	-20°C to 60°C.
Storage Temperature	-30°C to 70°C.
Humidity	0-95% RH, non-condensing.
Dimensions	Chassis: 130 x 130 x 42 mm; PCB: 120 x 120 mm.

4. I/O Interface Summary

4.1 Front I/O

Interface	Description
Display	2 x HDMI 2.0, up to 4K @ 60 Hz.
USB	2 x USB 3.1 + 2 x USB 2.0.
Wireless	Antenna openings; M.2 Key-E 2230 Wi-Fi / Bluetooth support.
Control	1 x power button and front-panel status indicators.
Note	The manual does not assign a formal front/rear naming convention; this table describes the display/USB/control I/O side.

4.2 Rear I/O

Interface / Control	Description
LAN	4 x RJ45 Intel® I225/I226 2.5GbE LAN.
Serial	1 x RJ45-form-factor RS232 serial port.
Power	1 x DC 12 V input, 5.5 x 2.5 mm.
Serial Redirection	Default support at 115200 baud.
RS485	N/A.

5. Processor and Platform Options

EHL-J6412 VER1.0 uses a fixed Intel® Celeron® J6412 2.0 GHz platform. The source manual does not list alternate processor options. Memory, storage and wireless/cellular functions should be configured according to the final project requirement.

Item	Description
Processor	Intel® Celeron® J6412, 2.0 GHz.
Processor Options	N/A in source manual.
Memory	1 x DDR4-3200 SO-DIMM, maximum 32 GB.
Storage	M.2 Key-M 2242/2280 SATA SSD.
Operating Systems	Windows 10 / Windows 11 / Linux.
Mounting	Wall mount with rear bracket.

6. Serial and Expansion Configuration

Function	Description
Serial Port	1 x RJ45-form-factor RS232 serial port.
Serial Redirection	Default support at 115200 baud.
RS485	N/A.
Wi-Fi / Bluetooth	M.2 Key-E 2230 slot.
4G / 5G	Source lists 4G compatibility via M.2 Key-M; 5G controlled by jumper.

7. Power, Cooling and System Functions

Item	Description
Main Power	DC 12 V input.
DC Jack	5.5 x 2.5 mm.
Cooling	Source specification table: N/A; product is identified as a fanless Box PC with ribbed aluminum enclosure.
Power Features	N/A in source specification table.
Mounting	Wall mount with rear bracket.

8. Mechanical and Environmental Information

Item	Description
Product Type	Fanless Box PC.
Chassis Dimensions	130 x 130 x 42 mm.
PCB Dimensions	120 x 120 mm.
Mounting	Wall mount with rear bracket.
Operating Temperature	-20°C to 60°C.
Storage Temperature	-30°C to 70°C.
Humidity	0-95% RH, non-condensing.

9. Ordering Information

Item	Available Configuration
Model	EHL-J6412 VER1.0.
Processor	Intel® Celeron® J6412 2.0 GHz.
Memory	1 x DDR4-3200 SO-DIMM, max. 32 GB.
Storage	M.2 Key-M 2242/2280 SATA SSD.
Wireless	M.2 Key-E 2230 Wi-Fi / Bluetooth.
Cellular	4G via M.2 Key-M and 5G jumper control are listed in the source manual; confirm final configuration before ordering.

10. Compliance and Documentation Notes

- Certification and compliance information is not specified in the source manual. Contact CoreIPC for project-specific certification or compliance documentation.
- The source specification table lists Cooling Design as N/A, while the same manual identifies the product as a fanless Box PC and shows a ribbed aluminum enclosure. This datasheet describes the chassis as fanless based on the product description and product images, while preserving the source-table note.
- The source manual lists the M.2 Key-M interface as an M.2 2242/2280 SATA SSD slot and also states that a 4G module is compatible via M.2 Key-M, with 5G controlled by jumper. Because these functions share the same listed interface, confirm the required storage/cellular configuration before ordering.

11. Contact Information

Company	CoreIPC
Sales Team	CoreIPC Sales Team
Email	sales@coreipc.com
Website	https://www.coreipc.com/

Disclaimer: This datasheet was compiled from EHL-J6412 User Manual Issue 1.0. Product configuration and optional functions may vary by production configuration. Please confirm the final storage, wireless/cellular and mounting configuration before order placement. All product names, trademarks and registered trademarks are the property of their respective owners.