Chipsee

Industrial PC

CS86-BOX-J1900 PRO

PN: CS86-BOX-J1900 PRO

Content can change at anytime, check our website for latest information of this product.
www.chipsee.com

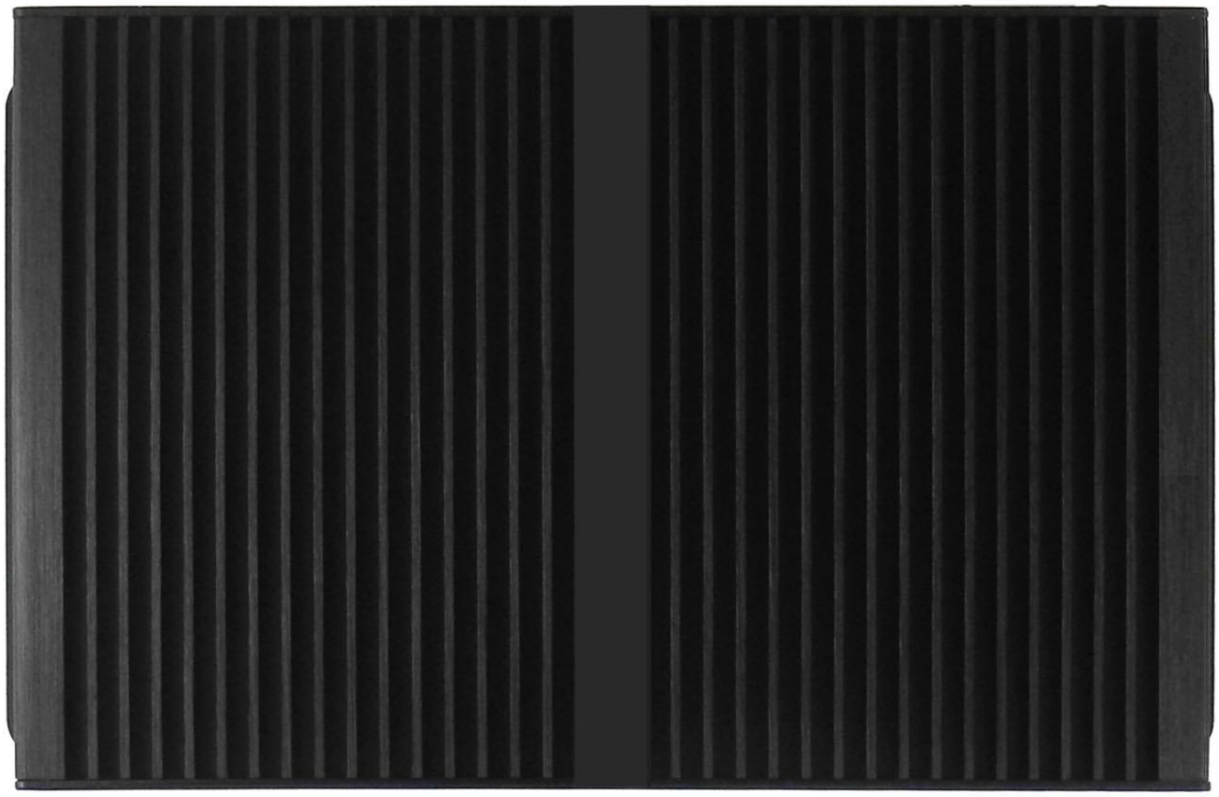
Contents

CS86-BOX-J1900 PRO

Front View

Rear View

Side View 1



Side View 2


Chipsee
PN:CS86-BOX-J1900 PRO
OS: Window 10
Config:DDR4G/SSD128G
SN:2024101170000372
https://chipsee.com
Origin:Made in China

Product Overview

The CS86-BOX-J1900 PRO is a rugged, high-quality mountable multifunctional industrial PC without a display. Thanks to the integrated brackets and its light-weight construction, this single board computer can be firmly attached to any flat surface, such as industrial cabinets or walls.

CS86-BOX-J1900 PRO is powered by the high-performance Intel® Core™ Celeron J1900 CPU. The CS86-BOX-J1900 PRO Industrial Box PC also features a broad range of connectivity options, allowing it to meet even the most demanding requirements in harsh industrial or outdoor environments.

Key Applications

- Industrial Automation
- Process Control
- Smart Grid Management
- CNC Manufacturing
- Environmental Monitoring
- Machine Vision Inspection
- Predictive Maintenance

Despite the performances, the offered CPU consumes very little power, TDP is only 10W. From the ground-up, the CPU is built for low power consumption.

A specially designed aluminum alloy housing with fins for increased heat dissipation serves as a passive cooler, eliminating the need for built-in fans. The fan-less design reduces noise, as well as the maintenance costs and efforts, increasing reliability at the same time.

Caution

Be careful when handling the product while it is operating: it might become hot under heavy CPU load.

Ordering Options

Most of the Chipsee products can be customized during the ordering process. The product will be shipped with the pre-installed factory defaults if no extra requirements are specified. The table in the Hardware Features section provides information about the default options bundled with the product.

> **Note**
>
> You can order CS86-BOX-J1900 PRO from the official Chipsee Store or from your nearest distributor.

Operating System

By default, CS86-BOX-J1900 PRO comes with the Ubuntu Linux operating system (OS) pre-installed. A different OS can be selected during the ordering process. For operating systems, CS86-BOX-J1900 PRO supports Ubuntu 22 and above, CentOS 9 Linux, Windows 7/8/10.

Optional Features

The CS86-BOX-J1900 PRO Industrial Box PC offers the highest levels of scalability in the entire product portfolio.

Feel free to contact Chipsee Technical Support at **support@chipsee.com** for all your customization needs.

CS86-BOX-J1900 PRO does not include WiFi/BT module by default. This module is optional and can be selected at the Chipsee store during the ordering process.

> **Warning**
>
> Installation, repair, and maintenance tasks should be performed by trained personnel only.
> Chipsee does not bear any responsibility for damage caused by inadequate handling of the product.

Hardware Features

The CS86-BOX-J1900 PRO Industrial Box PC offers a broad range of performance and connectivity options for scalable integration, providing expandability according to future needs. Some of the key features are listed in the table below.

CS86-BOX-J1900 PRO	
CPU	Intel Core Celeron J1900, Quad(4) Core 4 Threads, 2.0GHz
Mother Board	BayTrail, AMI BIOS
GPU	Intel® HD Graphics
RAM	4GB(1 x 4GB) DDR3L 1600MHz (default), Up to 8GB (single channel, optional)
Storage	Default mSATA 128GB SSD (supports up to 2TB), supports 2.5” SATA HDD (SATA2.0)
USB	1 x USB3.0, 5 x USB2.0 HOST ports (Type A)
PCIe	1 x Full Size Mini PCIe
Audio	1 x Audio interface, Realtek ALC662 chip, supports dual channel, stereo, Lineout
LAN	2 x RJ45, GbE (Intel® i211), Wake on LAN (WoL) support
UART	Default 6 x RS232 (COM1 ~ COM5 can be configured to 5 x RS485 by using a internal RS232 to RS485 board)
3G/4G	N/A
WiFi/BT	Optional
HDMI	1 x HDMI Out port, up to 2560x1600 60Hz, independent/identical display with VGA
VGA	1 x VGA Out port, up to 1920x1080 60Hz, independent/identical display with HDMI
SATA	1 x Full size mSATA, 1 x SATA
Power IN	12V 3A DC
Current	1.7A (100% CPU, 12V)
OS	Ubuntu 22 and above, CentOS 9 Linux, Windows 7/8/10
Operating Temp.	From -15°C to +80°C
Dimensions	235 * 137 * 51mm
Shell Material	Aluminum Alloy
Mounting	VESA, Desktop
Weight	1500g

Table 302 Table 1: Key Features

Power Input

The CS86-BOX-J1900 PRO Industrial Box PC should be powered by 12V DC, the connector is 5.5 x 2.5mm DC input.

12V DC Power Input

The POWER button is located to the opposite side of the power input connector and can be used to switch the power ON or OFF.

Power Button

Connectivity

There are many connectivity options available on the CS86-BOX-J1900 PRO industrial PC. It has 6 x USB Type A connectors configured as HOSTS, 1 x HDMI port, 1 x VGA, 2 x RJ45 connectors supporting Gigabit Ethernet (GbE), and 6 x RS232 connectors that can be configured in RS485 mode (1 x RS232 and 5 x RS485) as per request.

RS232/485 Connectors

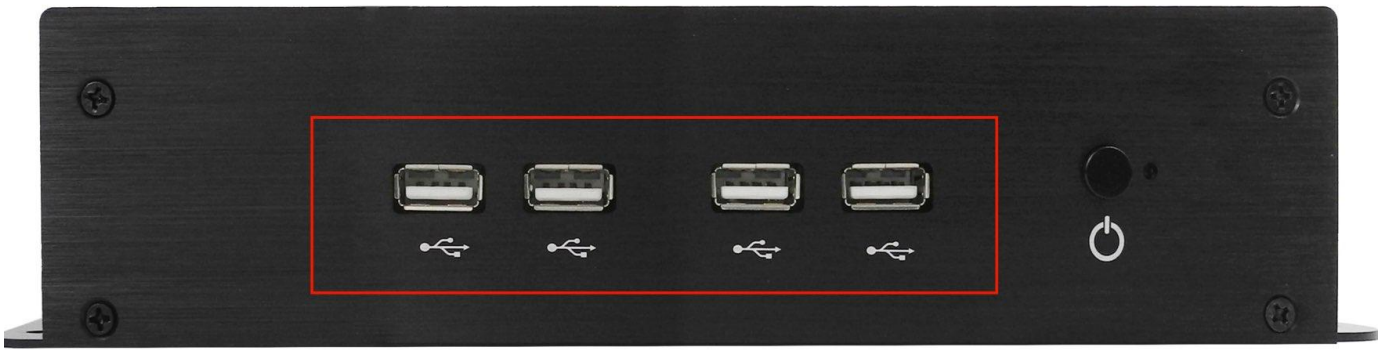
Product has 6 x 9-pin D-Sub connectors which are configured as RS232 interfaces by default. The COM1~COM5 9-pin D-sub connectors can be configured as either RS232 or RS485 communication interfaces through an internal convert board. If different configuration is required, please get in touch with Chipsee technical support at **support@chipsee.com**

COM Ports

USB HOST Connectors

CS86-BOX-J1900 PRO is equipped with 1 x USB 3.0 HOST and 5 x USB 2.0 HOST ports.

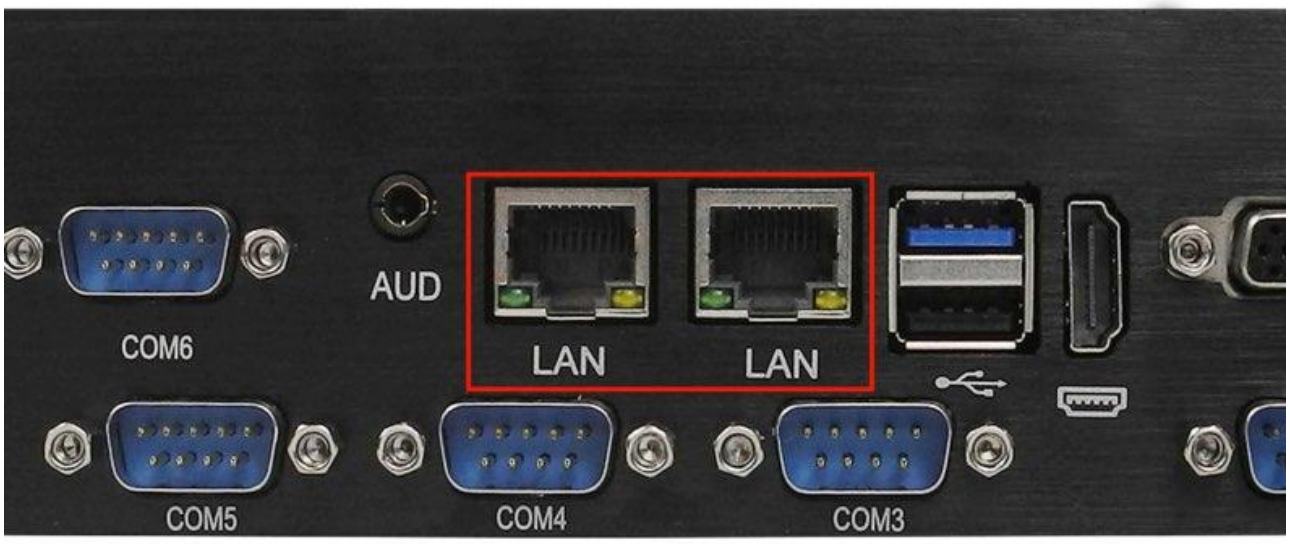
USB 3.0 (Top) and USB 2.0 (Bottom)



USB 2.0 on the Other Side

LAN Connectors

2 x **LAN (RJ45) connectors** provide Ethernet connectivity over standardized Ethernet cables. The integrated two-port Ethernet interface supports 10/100/1000BASE-T/TX specifications with automatic speed negotiation and Wake on LAN (WoL) functionality. Power over Ethernet (PoE) is not supported.



2 x RJ45 GbE LAN Connectors

Note

Use CAT5 or better cables to achieve full data throughput over maximum distance defined by the 1000BASE-T standard (100m).

HDMI Connector

Although not equipped with the screen on its own, the The CS86-BOX-J1900 PRO Industrial Box PC features 1 x **HDMI** port and 1 x **VGA** port.

The HDMI out port, supports video output up to 2560x1600 60Hz; the VGA out port, supports up to 1920x1080 60Hz. These two video output ports support independent/ identical display, which means you can display same video or different video on two external screens.

HDMI(Left) and VGA(Right) Ports

Audio In/Out Connector

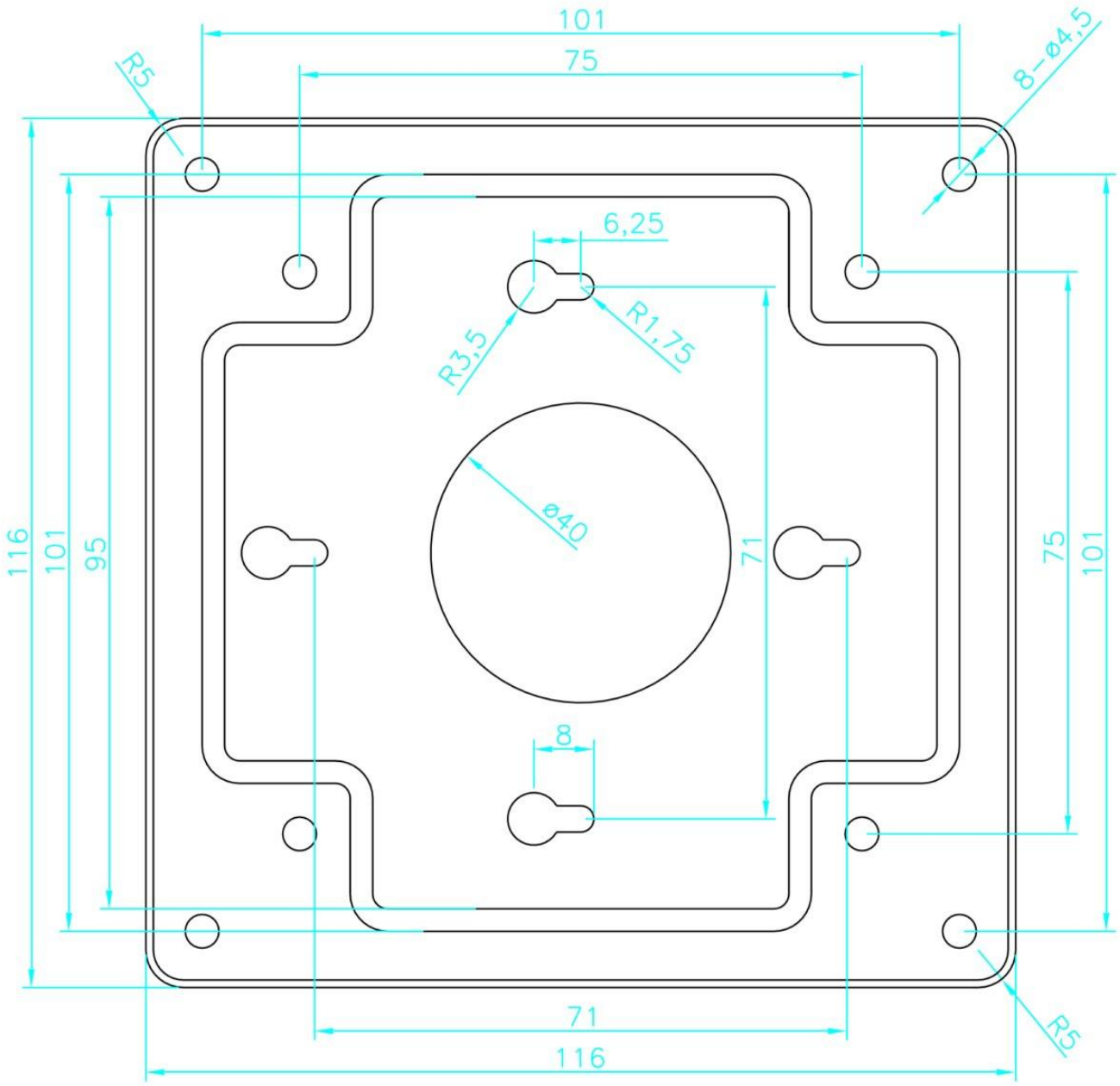
The CS86-BOX-J1900 PRO has one 3.5mm audio port, the Realtek ALC662 chip, supports dual channel, stereo and lineout.

Audio Port

Mounting Procedure

The CS86-BOX-J1900 PRO Industrial Box PC supports VESA mounting pattern with M3 screws, enabling simplified installation onto any standard VESA mounting rack.

A VESA mount adapter is sold *separately*, if you need it you can contact us when placing an order.



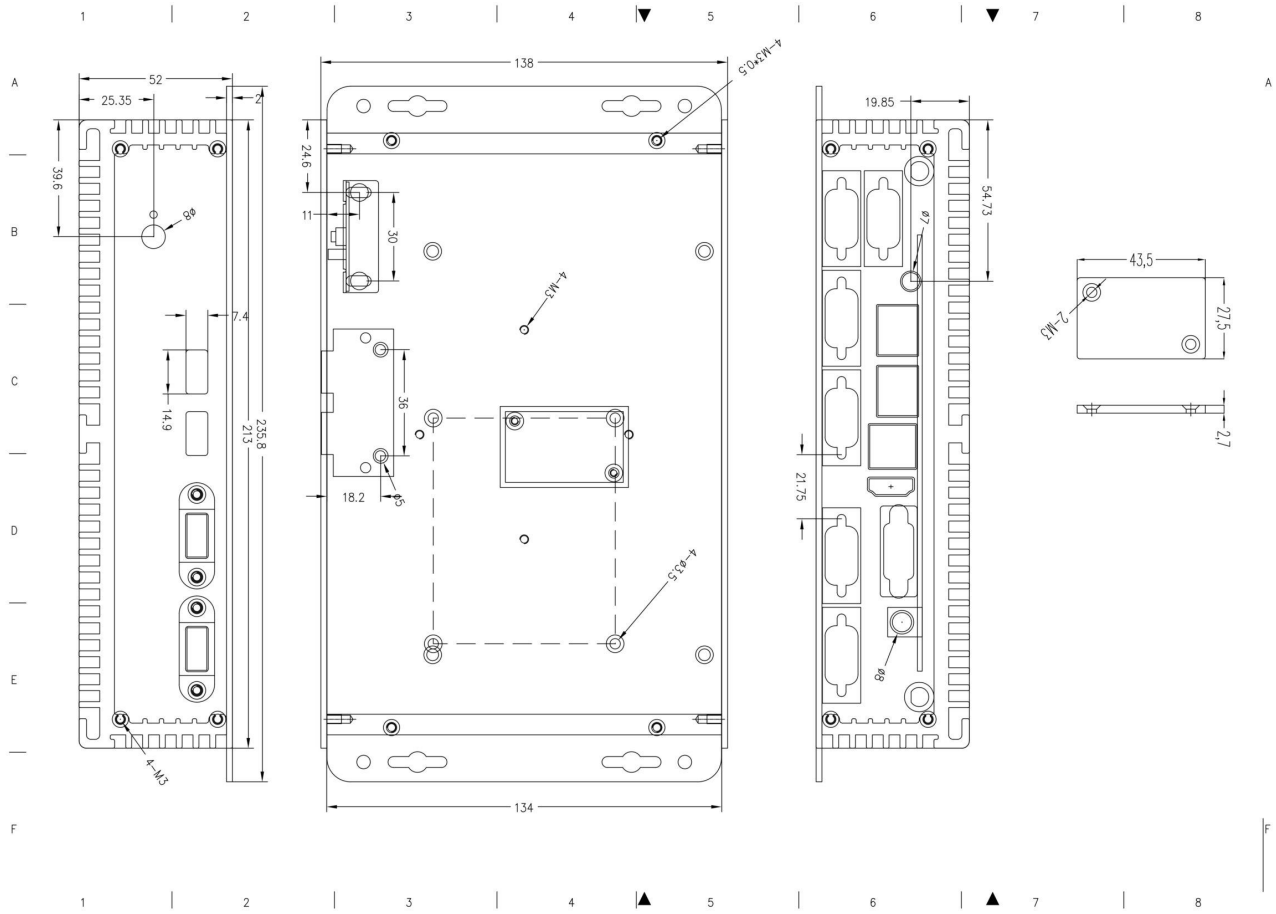
VESA Adapter (sold separately)

The CS86-BOX-J1900 PRO Industrial Box PC also supports desktop mount.

You can find detailed information about mounting in the Mount IPC Guide.

Mechanical Specifications

The outer mechanical dimensions of The CS86-BOX-J1900 PRO Industrial Box PC are 235 * 137 * 51mm (W x L x H). Please refer to the technical drawing in the figure below for details related to the specific product measurements.



CS86-BOX-J1900 PRO Technical Drawing

Disclaimer

This document is provided strictly for informational purposes. Its contents are subject to change without notice. Chipsee assumes no responsibility for any errors that may occur in this document. Furthermore, Chipsee reserves the right to alter the hardware, software, and/or specifications set forth herein at any time without prior notice and undertakes no obligation to update the information contained in this document.

While every effort has been made to ensure the accuracy of the information contained herein, this document is not guaranteed to be error-free. Further, it does not offer any warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document.

Despite our best efforts to maintain the accuracy of the information in this document, we assume no responsibility for errors or omissions, nor for damages resulting from the use of the information herein. Please note that Chipsee products are not authorized for use as critical components in life support devices or systems.

Technical Support

If you encounter any difficulties or have questions related to this document, we encourage you to refer to our other documentation for potential solutions. If you cannot find the solution you're looking for, feel free to contact us. Please email Chipsee Technical Support at **support@chipsee.com**, providing all relevant information. We value your queries and suggestions and are committed to providing you with the assistance you require.