

SolidRun Bedrock R8000

Owner's Manual

Rev 1.0 20-Nov-2024

[Online Bedrock User's Guide](#)



Safety Instructions

Use these safety guidelines to protect your computer from potential damage and to ensure your personal safety. Each procedure included in this document assumes that you have read these safety instructions.

 **WARNING:** Disconnect all power sources before opening the computer. Close all covers, panels, and screws before connecting the power source.

 **WARNING:** The metal body of the computer may be hot after prolonged intensive use or inadequate cooling. Shut down the computer and wait 10 minutes to allow it to cool down before servicing.

 **CAUTION:** You should only perform troubleshooting and simple repairs as authorized in the product documentation, or as directed SolidRun technical support. Damage due to unauthorized service is not covered by warranty.

 **CAUTION:** Some cables have connectors with locking latch. To prevent damage to the cable or to the connector, make sure to unlock the connector before disconnecting.

Introduction

Bedrock R8000 is a high-performance fanless industrial PC based on AMD Ryzen™ Embedded 8000 CPU.

Bedrock R8000 features

- AMD Ryzen™ Embedded 8000 CPU
- Up to 96 GB RAM (DDR5 ECC / non-ECC, 2x SODIMM)
- 4 display interfaces (1x HDMI 2.1, 3x DP 2.1)
- Up to 3x NVME Gen 4x4 SSDs (M.2 2280)
- Up to 3x Hailo-8 AI accelerators (shared with NVME and WiFi)
- 2x 2.5 GbE ports (RJ45)
- Optional WiFi 6E and 5G modem
- 4x USB ports (1x USB 3.2 10 Gbps and 3x USB 3.2 5 Gbps)
- All metal fanless enclosure with wide temperature range support

Package content

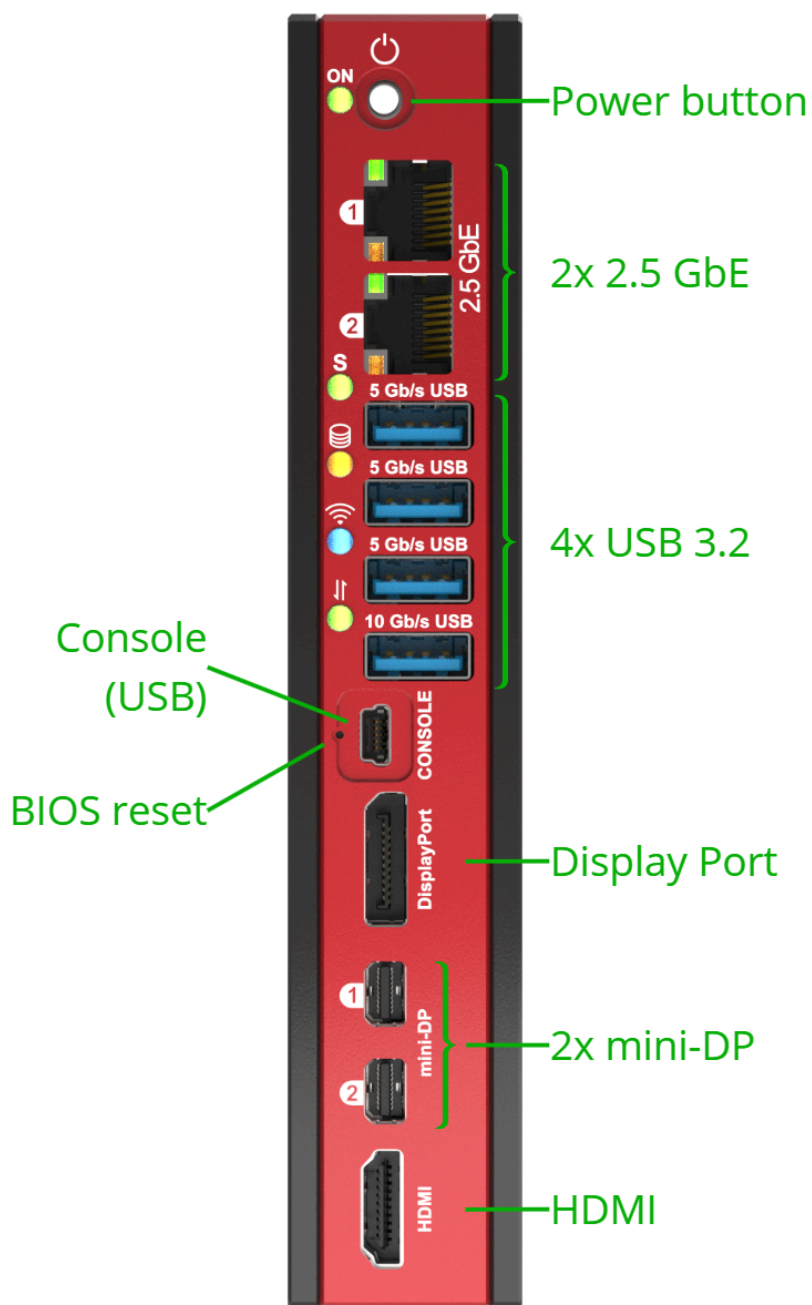
1. Bedrock R8000 PC
2. Owner's manual
3. Fasteners (depends on model)
4. Antennas (depends on model)

Note: Power supply, mounting fixture, cables and SFP modules are not included and should be ordered separately.

Hardware specifications

Feature	Specification	Notes
CPU	AMD Ryzen™ Embedded 8000 Series 8C/16T Zen4 4nm Up to 5.1 GHz Up to 54W	
GPU	AMD Radeon™ 780M	Up to 12 CU @ 2700 MHz
RAM	Dual channel DDR5 5600 up to 96 GB ECC / non-ECC	2x SODIMM (2x32 bit each) RAM is conduction cooled
Display	1x HDMI 2.1 1x Display Port 2.1 2x mini-DisplayPort 2.1	Max resolution / refresh rate: 7680x4320 @ 60Hz 3840x2160 @ 240Hz * Depending on NIO type
Main storage	NVMe PCIe Gen4 x 4	M.2 key-M 2280 Optional power-loss-protection NVMe is conduction cooled
Extra storage	2x NVMe PCIe Gen4 x 4	2x M.2 key-M 2280 NVMe devices are conduction cooled
LAN	4x 2.5 GbE (Intel I226)	4x RJ45 * Depending on NIO type
WLAN	WiFi 6E (Intel AX210) BT 5.3	2x RP-SMA antennas Optional and upgradable (M.2 key-E 2230)
Modem	4G / 5G (Quectel)	2x SMA antennas Optional and upgradable (M.2 key-B 3042 / 3052)
USB	1x USB 3.2 gen 2 10 Gb/s 3x USB 3.2 gen 2 5 Gb/s	Connectors: 4x USB type-A
Console	Serial over USB	mini-USB connector
BIOS	AMI Aptio V	Dual SPI FLASH for redundancy Console redirection
Operating systems	Windows 10/11/IoT, Linux	Other x86 operating systems supported
Power	DC 12V-60V	Phoenix terminal
Temperature range	Up to -40°C to 85°C	Also available in commercial temperature range
Enclosure	All aluminum enclosure, fanless cooling	

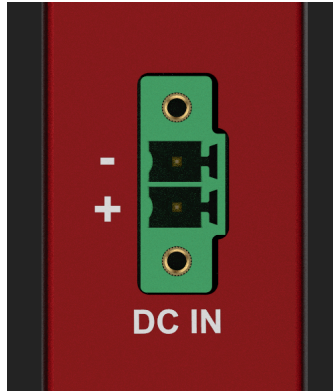
Connectors layout



Quick Start Guide

Minimum Requirements

1. Bedrock requires 19V DC, 4.7A power input. Please note polarity which is marked next to the DC connector.



2. RAM must be installed for Bedrock to boot.
If no RAM is installed please install before use. Consult [online user's guide](#) for installation instructions.

BIOS Setup

Please consult [BIOS Documentation](#)

Installing operating system

Please consult [Installing OS on Bedrock R8000](#)

Note about Maintenance and Troubleshooting

Please consult [online user's guide](#)

Service

Technical Support

For technical support please contact SolidRun using the [Technical Support Form](#)

Or scan the QR code on the right.



Warranty

Warranty and Returns Terms

SolidRun provides warranty on its products for a period of three (3) years from the date of shipment.
For extended warranty period please contact us.

In case of a hardware product defect, your sole remedy and SolidRun's sole liability shall be for SolidRun, at its sole discretion, to either repair or replace the defective hardware product at no charge or to refund the purchase price, as long as the product is within its warranty period. Each party will cover its own shipping costs when returning the goods / shipping the back after replacement or repair. This warranty is void if the product has been altered or damaged by accident, misuse or abuse.

Notes

- Warranty on the storage device is according to manufacturer's warranty.
- Warranty on non-rechargeable replaceable batteries is 24 months only.

Disclaimer of Warranty

UNDER NO CIRCUMSTANCES SHALL SOLIDRUN BE LIABLE FOR ANY LOSS, DAMAGE OR EXPENSE CAUSED OR INCURRED DUE TO ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL SOLIDRUN BE LIABLE FOR ANY KIND OF INCIDENTAL OR CONSEQUENTIAL DAMAGES YOU MAY SUFFER DIRECTLY OR INDIRECTLY FROM THE USE OF ANY OF ITS PRODUCTS.

Limitation on Liability

UNDER NO CIRCUMSTANCES SHALL SOLIDRUN BE LIABLE FOR ANY LOSS, DAMAGE OR EXPENSE SUFFERED OR INCURRED WITH RESPECT TO ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL SOLIDRUN BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES THAT YOU MAY SUFFER DIRECTLY OR INDIRECTLY FROM USE OF ANY PRODUCT.

RMA

Return Policy

Returns for any unaffected item are permitted within 14 days from the date of receipt of merchandise. After such time, all sales are considered final. Shipping and handling charges are not refundable. SolidRun shall not be responsible for any shipping charges of merchandise being returned. All returned merchandise must be in its original packaging and clean condition. Merchandise that has been powered or reprogrammed cannot be returned. All returns must include all the factory accessories which came with the item.

- Keep the original package for shipping.
- Please contact the **seller**. Contact SolidRun directly only if you purchased Bedrock directly from SolidRun.



Bedrock R8000

Manufacturer: SolidRun Ltd.

This device is compliant with Part 15 of the FCC Rules.

WEEE



You must dispose of an electrical item AND/OR contained battery separately from general household waste when they reach the end of their useful life. Take your PC or the battery to your local waste collection point. This applies to all countries of the European Union, and to other countries with a separate waste collection system.