HARDWARE DATA SHEET

ina os

The technical document that provides detailed specifications, performance metrics, and usage guidelines for a hardware component or device

TABLE OF CONTENTS

ina os

OVERVIEW

Ina OS is a high-performance, modular, and versatile open-source operating system engineered to meet the demands of diverse computing environments — from personal workstations and embedded systems to enterprise-grade server solutions.

Designed with flexibility and efficiency in mind, Ina OS delivers a seamless user experience while maintaining robust security and scalability for both individual users and corporate deployments.

Comprehensive Application Ecosystem

Ina OS features a built-in Application Store, offering access to thousands of free and premium applications across productivity, development, multimedia, and more. This centralised hub ensures effortless software discovery and installation, eliminating compatibility concerns.

Broad Hardware & Peripheral Compatibility

With extensive driver support, Ina OS seamlessly integrates with a wide range of hardware architectures and peripheral devices, ensuring optimal performance across desktops, laptops, industrial systems, and IoT deployments.

Unmatched Application Support

Ina OS breaks barriers with extended compatibility, supporting multiple application formats including:
- Web-based apps (PWA).
- Traditional .deb packages (Debian-based software).
- Flatpak and AppImage for universal, dependency-free installations.
- Even Windows .exe applications via advanced compatibility layers, bridging the gap between platforms.

Optimised for Gaming & Multimedia
Gamers and content creators benefit from native support for Steam, Lutris, and other gaming platforms, including seamless execution of Windows-only titles. Enhanced graphics rendering and low-latency performance make Ina OS a strong contender in the gaming and creative industries.

High-Performance Computing & Energy Efficiency
Engineered for modern hardware, Ina OS is optimized for multi-core CPUs and energy-efficient devices, ensuring smooth operation on high-end workstations as well as low-power embedded systems.

OEM-Friendly Deployment
For hardware manufacturers, Ina OS offers a customizable OEM version, enabling effortless pre-installation on PCs, laptops, and specialized devices. This streamlined integration reduces development overhead while providing a polished out-of-the-box experience for end users.

Built on the Linux Kernel (right now 6.8, update is under development)
Leveraging the Linux kernel 6.8, Ina OS delivers cutting-edge performance, enhanced security, and improved hardware support, ensuring long-term stability and innovation.

HARDWARE COMPATIBILITY

ina OS

Ina OS supports wide range of hardware and peripheral devices.
This list is always a subject for change due to extensive development of Ina OS.
We are ready to make a custom solution to meet your needs.

Minimum Specifications

Component	Minimum	Recommended
CPU	Intel/AMD x86-64 (1 core)	Intel/AMD x86-64 (4+ cores)
RAM	4 GB (possibility to go lower to 1 GB)	8 GB
Storage	25 GB HDD	25 GB SSD
Graphics	Embedded video card	Embedded/Discrete video card

HARDWARE COMPATIBILITY (2)

Supported Peripherals

WiFi
- **802.11ax (Wi-Fi 6/6E)** – Full support, including 6 GHz (with compatible hardware).
- **802.11ac (Wi-Fi 5)** – Stable support.
- **802.11n (Wi-Fi 4)** – Baseline driver stack.
- New chipset support (Intel, MediaTek, Qualcomm, Realtek, Broadcom).

Bluetooth
- **Bluetooth 5.4** – Basic support (depends on drivers and hardware).
- **Bluetooth 5.3, 5.2, 5.1, 5.0** – Full support.
- **Bluetooth LE Audio (LC3, BAP, CAP)** – Partial support (driver-dependent).

HARDWARE COMPATIBILITY (3)

ina os

Supported Peripherals

HDMI
- **HDMI 2.1 (8K@60Hz, 4K@120Hz, VRR, ALLM, eARC)** – Support depends on GPU (AMD, Intel, NVIDIA with open drivers).

- **HDMI 2.0** – Full support.

- **HDMI 1.4/2.0b** – Backward compatibility.

Ethernet
- **10G/25G/40G/100G Ethernet** – Modern controller support (Intel, Mellanox, Broadcom, Realtek).

- **2.5G/5G Multi-Gigabit Ethernet** – Improved support (Realtek RTL8125, Intel I225, Aquantia).

- **1G Ethernet** – Standard support for most chips.

HARDWARE COMPATIBILITY (4)

Supported Peripherals

USB
- **USB4 v2.0 (80 Gbps)** – Experimental support (requires compatible hardware).

- **USB4 / Thunderbolt 3/4** – Enhanced support (Intel, AMD).

- **USB 3.2 Gen 2x2 (20 Gbps**) – Full support.

- **USB 3.2 Gen 2 (10 Gbps), USB 3.2 Gen 1 (5 Gbps)** – Standard support.

- **USB 2.0 (480 Mbps**) – Backward compatibility.

Additional Notes
- **DisplayPort 2.1** – Partial support (GPU/driver-dependent).

- **NVMe over Fabrics (NVMe-oF)** – Improved support.

HARWARE SUBMISSION (1)

We are always glad to extend our hardware compatibility and work close with manufacturers. We are capable to do:

- **custom kernel modifications** to meet your requirements.
- custom processor **architecture support**.
- modify **pre-installed software**.

In case you have a hardware or a peripheral device and want it to be handled by Ina OS do not hesitate to contact us, we will find an appropriate solution for compatibility.

ina os

Hardware or OEM
- We provide extended support of your hardware or prepare a special build for OEM version to be pre-installed on your hardware.
- Next information is required:
    - Hardware name or specification.
    - (optional) Source code or binary file of the driver (it could be also a kernel extension) for Debian family of Linux OS.
    - Send us message via **Contact Us form on indusina.com**.

Peripheral Devices
- We provide extended support of custom peripheral devices.
- Next information is required:
    - Device name or specification.
    - (optional) Source code or binary file of the driver (it could be also a kernel extension) for Debian family of Linux OS.
    - Send us message via **Contact Us form on indusina.com**.

Ina OS infrastructure will provide for you:

- **Repositories** to store binary files of drivers, software and kernel.

  - We can **store custom versions of drivers and kernels** for your need on our side.

- **Automatic updates** for users.

  - We are capable to **ship updates of your software** to all Ina OS users.

- **Application Store page** for description and screenshots if needed.

  - Even the **beginning user can handle** install of software, drivers and kernel updates via UI.

DOCUMENTATION & SUPPORT

- Website: **indusina.com**

- Wiki: **wiki.indusina.com**

- Customer Support over messenger

- Commercial Support over request

ina os