ACEMAGIC F2A

ACEMAGIC Matrix Mini F2A Mini PC User Manual

Model: F2A

1. INTRODUCTION

Welcome to the user manual for your ACEMAGIC Matrix Mini F2A Mini PC. This guide provides essential information for setting up, operating, maintaining, and troubleshooting your device. The ACEMAGIC Matrix Mini F2A is a high-performance mini PC designed for various computing tasks, from professional work to gaming and content creation.

It features an Intel Core Ultra 5 125H processor, 32GB DDR5 RAM, a 1TB NVMe SSD, and advanced connectivity options including WiFi 7 and Bluetooth 5.4.

2. WHAT'S IN THE BOX

Please check the package contents to ensure all items are present:

- ACEMAGIC Matrix Mini F2A Mini PC
- HDMI Cable
- Power Adapter
- User Manual

3. PRODUCT OVERVIEW

The ACEMAGIC Matrix Mini F2A Mini PC combines powerful hardware with a compact design. Below are its key features and components.

Front view of the ACEMAGIC Matrix Mini F2A Mini PC, showcasing its compact design.

POWERED BY INTEL CORE ULTRA 5 125H

For the First Time, the Latest Generation Intel4 Process Is Used with a Disruptive 3D High-Performance Hybrid Architecture, which can Improve Performance by up to about 36%.

14 Cores
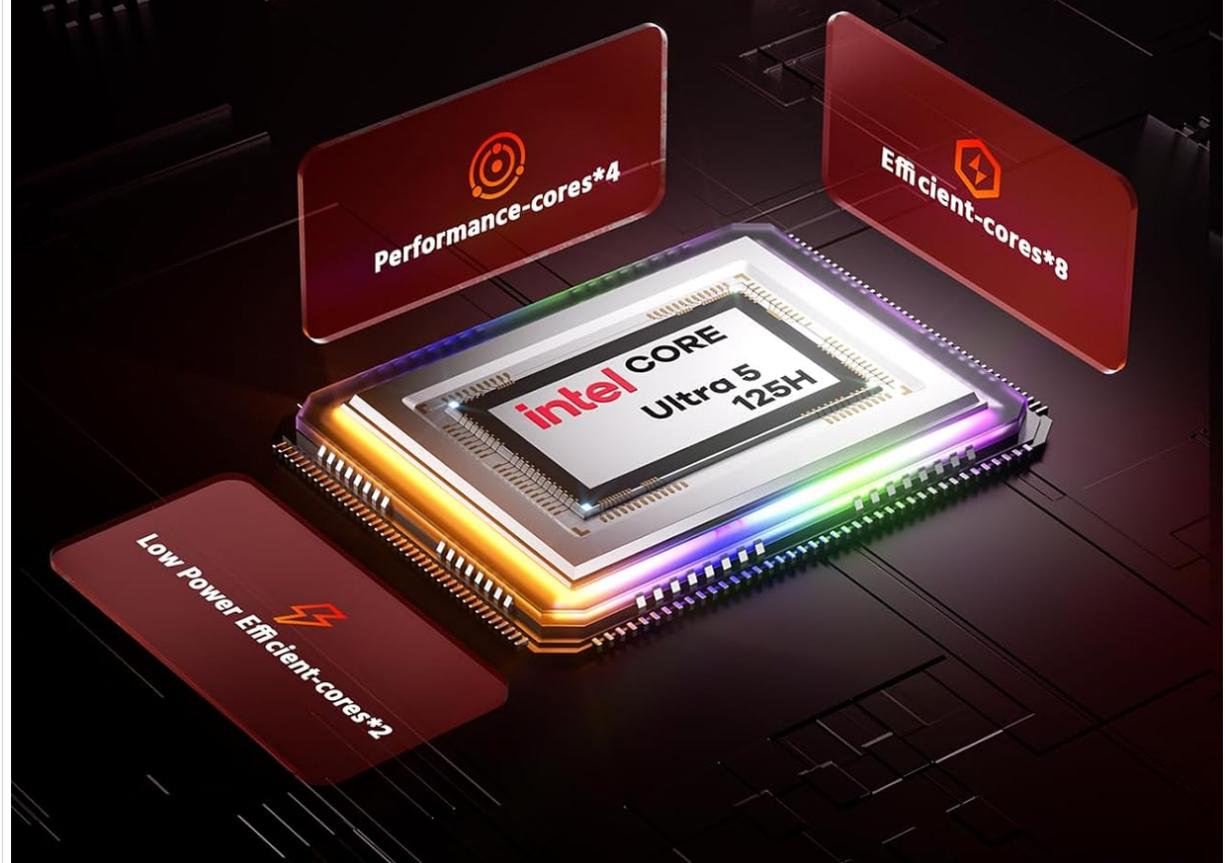**18** Threads
4.5GHz Turbo Boost
18MB Cache
65W TDP
Intel 4 Process Technology

Performance-cores*4

Efficient-cores*8

intel CORE Ultra 5 125H

Low Power Efficient-cores*2

Rear view of the ACEMAGIC Matrix Mini F2A Mini PC, highlighting the various connectivity ports including HDMI, USB, and Ethernet.

3.1. AI Capabilities

The F2A Mini PC integrates Intel Core Ultra 5 with AI Boost technology, accelerating AI-related applications, video conferencing enhancements, and background blur functions. The CPU/GPU/NPU combination forms three AI engines, adapting to future intelligent trends.

This image demonstrates the AI capabilities of the Mini PC, including AI acceleration for creative applications and intelligent blur for video conferencing.

3.2. Processor

The Intel Core Ultra 5 125H processor, based on the Meteor Lake architecture, offers high performance with 4 P-cores, 8 E-cores, and 2 LPE-cores, optimized for various computing tasks.

An illustration of the Intel Core Ultra 5 125H processor, detailing its 14 cores, 18 threads, 18MB cache, and 4.5GHz Turbo Boost frequency.

3.3. Graphics

The F2A Mini PC's Intel Arc Graphics unit provides performance comparable to entry-level dedicated GPUs. It is suitable for graphic-intensive tasks like 3D modeling, rendering, photo editing, video editing, and
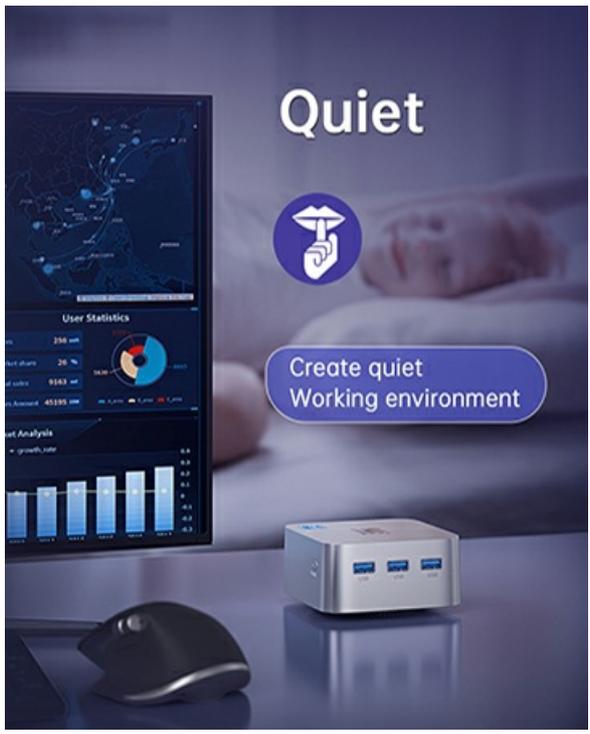
gaming. It supports XeSS Ray Tracing, advanced graphics technologies typically found in dedicated GPUs, ensuring smooth graphics and high image quality.

This diagram highlights the Intel Arc GPU's features such as XeSS, Ray Tracing, and DirectX 12 support, indicating its performance capabilities.

3.4. Memory and Storage

The Mini PC features 32GB DDR5 memory, offering twice the speed of DDR4. It includes an integrated Intel graphics card with dual encoding engines for faster clip editing, smaller video files, and enhanced AI video processing in applications like Adobe Premiere Pro. It also provides dual-slot SSD functionality for 4K video editing and image correction.

A visual comparison between DDR4 and DDR5 memory, showing the enhanced bandwidth, frequency, and chip density of DDR5 used in the Mini PC.

3.5. Connectivity

The F2A Mini PC incorporates WiFi 7 technology, offering maximum transmission speeds up to 5.8 Gbps (2.4 times faster than WiFi 6). Bluetooth 5.4 improves connection stability and reliability compared to BT 5.2, crucial for real-time applications like audio streaming, gaming, and VR.

This image showcases the advanced wireless capabilities, including WiFi 7 with speeds up to 5.8Gbps and Bluetooth 5.4 for stable connections.

3.6. Cooling System

The ACEMAGIC F2A features a dual-fan design: a 100x15mm centrifugal fan for CPU cooling and a 40x7mm axial fan for SSD and DDR. This configuration reduces fan speed under heavy loads, maintaining cooling performance while minimizing noise, enhancing user experience, and prolonging hardware lifespan.

4. Setup Guide

4.1. Connecting Peripherals

1. **Connect Monitor:** Use an HDMI cable to connect your monitor to the HDMI port on the Mini PC.
2. **Connect Keyboard and Mouse:** Plug your USB keyboard and mouse into the available USB ports.
3. **Connect to Network (Optional):** For a wired connection, plug an Ethernet cable into the LAN port. For wireless, ensure your WiFi network is available during initial setup.
4. **Connect Power:** Plug the power adapter into the DC-in port on the Mini PC, then plug the other end into a power outlet.

4.2. First Boot

1. Press the power button on the front of the Mini PC.
2. The system will boot up. Follow the on-screen instructions to complete the Windows operating system setup, including language, region, and network settings.
3. Once setup is complete, your Mini PC is ready for use.

5. OPERATING INSTRUCTIONS

5.1. Basic Operation

- **Power On/Off:** Press the power button to turn on. To turn off, use the Windows Shut Down option or press and hold the power button for 5 seconds.
- **Restart:** Use the Windows Restart option.
- **Sleep Mode:** Use the Windows Sleep option to put the PC into a low-power state.

5.2. Expanding Storage

The Mini PC supports dual-slot SSD functionality, allowing for easy storage expansion. Refer to the detailed instructions for installing an additional M.2 NVMe SSD if needed.

6. MAINTENANCE

- **Cleaning:** Regularly clean the exterior of the Mini PC with a soft, dry cloth. Use compressed air to clear dust from vents to ensure proper airflow and cooling.
- **Software Updates:** Keep your operating system and drivers updated to ensure optimal performance and security.
- **Environmental Conditions:** Operate the Mini PC in a well-ventilated area, away from direct sunlight, heat sources, and excessive moisture.

7. TROUBLESHOOTING

If you encounter issues with your Mini PC, refer to the table below for common problems and solutions.

Problem	Possible Cause	Solution
No Power	Power adapter not connected; Power outlet faulty; Power button not pressed correctly.	Ensure power adapter is securely connected to both the PC and the outlet. Try a different outlet. Press the power button firmly.
No Display	Monitor not connected; Monitor input source incorrect; Monitor faulty; HDMI cable faulty.	Check HDMI cable connection. Ensure monitor is set to the correct input source (e.g., HDMI 1). Test with a different monitor or HDMI cable.
Slow Performance	Too many applications running; Insufficient storage space; Overheating.	Close unnecessary applications. Free up disk space. Ensure proper ventilation and clean dust from vents.
No Wi-Fi/Bluetooth	Drivers not installed; Wireless module disabled; Interference.	Check device manager for wireless drivers. Ensure Wi-Fi/Bluetooth is enabled in Windows settings. Move away from potential interference sources.

8. TECHNICAL SPECIFICATIONS

Feature	Specification

Feature	Specification
Brand	ACEMAGIC
Model Number	F2A
Operating System	Windows
Hardware Platform	Linux, PC, Windows
Processor Brand	Intel
Processor Type	Intel Core Ultra 5 125H
Processor Speed	4.5 GHz
Number of Cores	14 (18 Threads)
Cache Size	18 MB
RAM Size	32 GB
Maximum Memory	64 GB
Storage Capacity	1 TB
Hard Drive Technology	SSD
Hard Drive Interface	SSD
Graphics Chipset Brand	Intel
Graphics Card Description	Dedicated (Intel Arc Graphics)
GPU	Intel Arc Graphics
Resolution Support	3840x2160
Connectivity Type	Bluetooth, Wi-Fi
Wireless Technology Type	802.11ax (WiFi 7)
Hardware Interface	Bluetooth, USB
HDMI Ports	1
USB 3.0 Ports	4
Item Dimensions L x W x H	14.7 x 14.7 x 5.2 centimeters
Miscellaneous	AI inside
Specific Uses for Product	Video Games, Photo Editing, Video Editing

9. WARRANTY AND SUPPORT

ACEMAGIC is dedicated to providing high-quality hardware and excellent customer service. Our R&D and production teams strive for excellence to deliver premium products and support to our global customers.

This image shows icons representing 12-month warranty, customer support, technical assistance, and Amazon fulfillment.

Your ACEMAGIC Mini PC comes with a **1-year manufacturer warranty**. For technical assistance, customer service, or warranty claims, please refer to the contact information provided with your purchase or visit the official ACEMAGIC website.

You can also visit the ACEMAGIC Brand Store for more information and support resources.

Follow ACEMAGIC on social media platforms like Facebook, Instagram, YouTube, Pinterest, Twitter, and TikTok for updates and community support.