

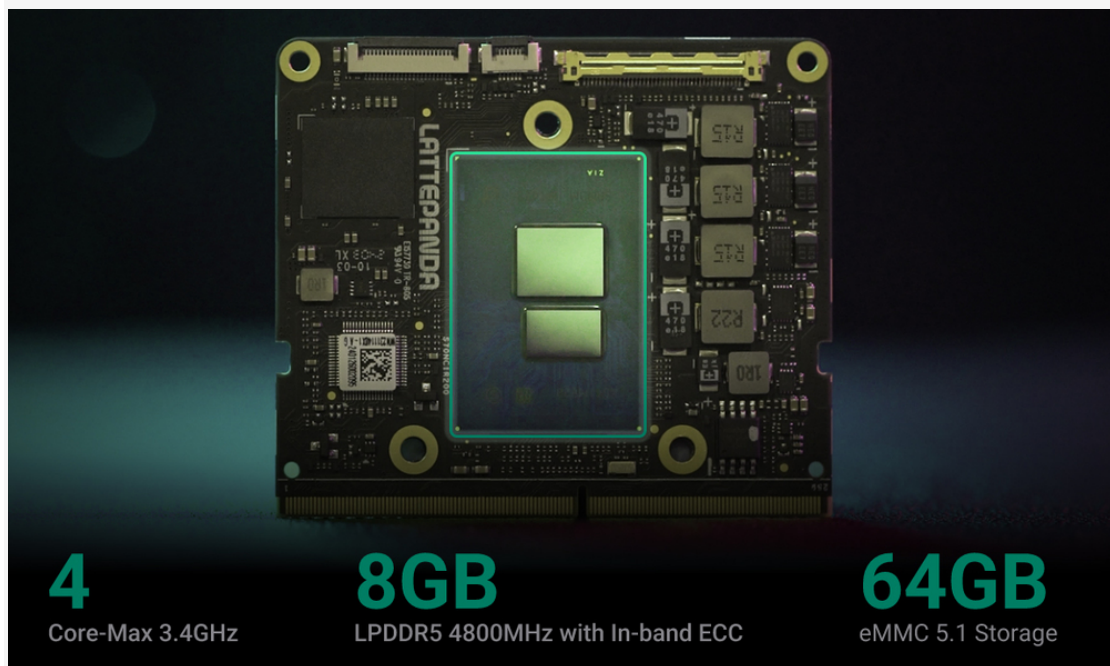
## INTRODUCTION

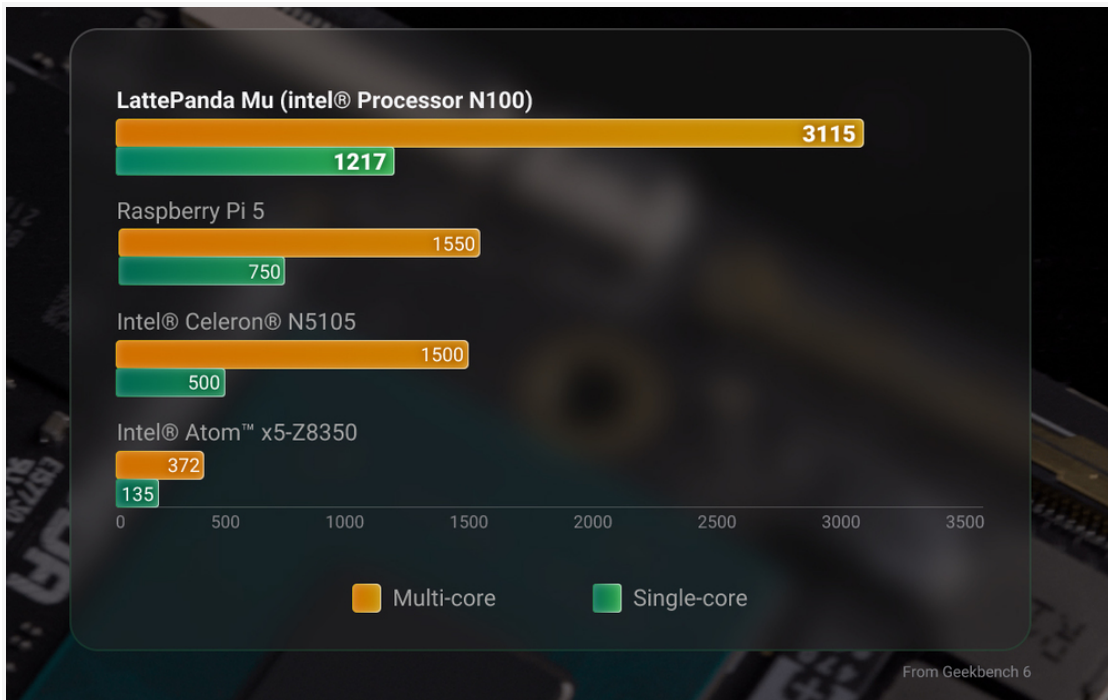
The LattePanda Mu x86 Compute Module Evaluation Kit is a comprehensive development kit designed for hardware developers. It includes the [LattePanda Mu Compute Module](#), [Lite Carrier Board](#), and [Active Cooler](#). This kit is suitable for evaluating common interfaces such as USB, HDMI, PCIe, UART, and can be used for solution evaluation, prototype design, and more. It provides abundant open-source design materials to accelerate development progress and make hardware development more efficient and convenient.

### Product 1 in this Kit - A Micro x86 Compute Module

#### Small but Powerful

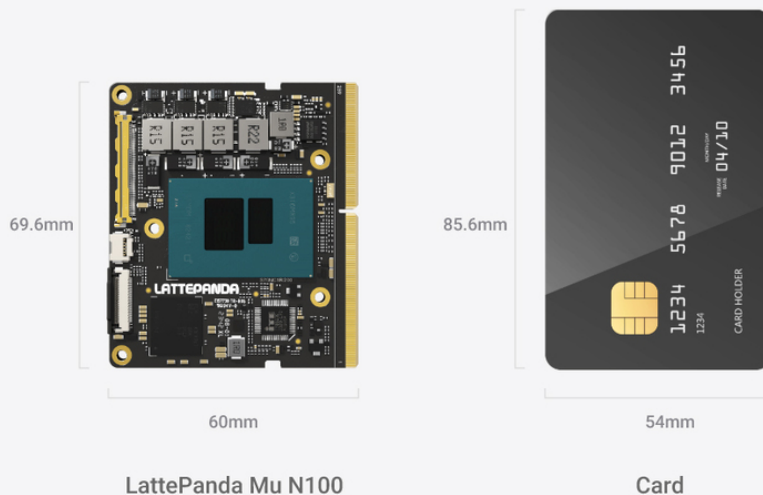
LattePanda Mu x86 compute module features Intel N100 quad-core processor with 3.4GHz turbo frequency, offering ample performance and multitasking capabilities for the majority of applications.





## Card-Sized

Despite its small size of 69.6mm x 60mm, The pocket size of the LattePanda Mu N100 computer-on-module allows for integration into space-constrained devices, delivering powerful computation without occupying much space.



## Flexibility in Performance and Energy

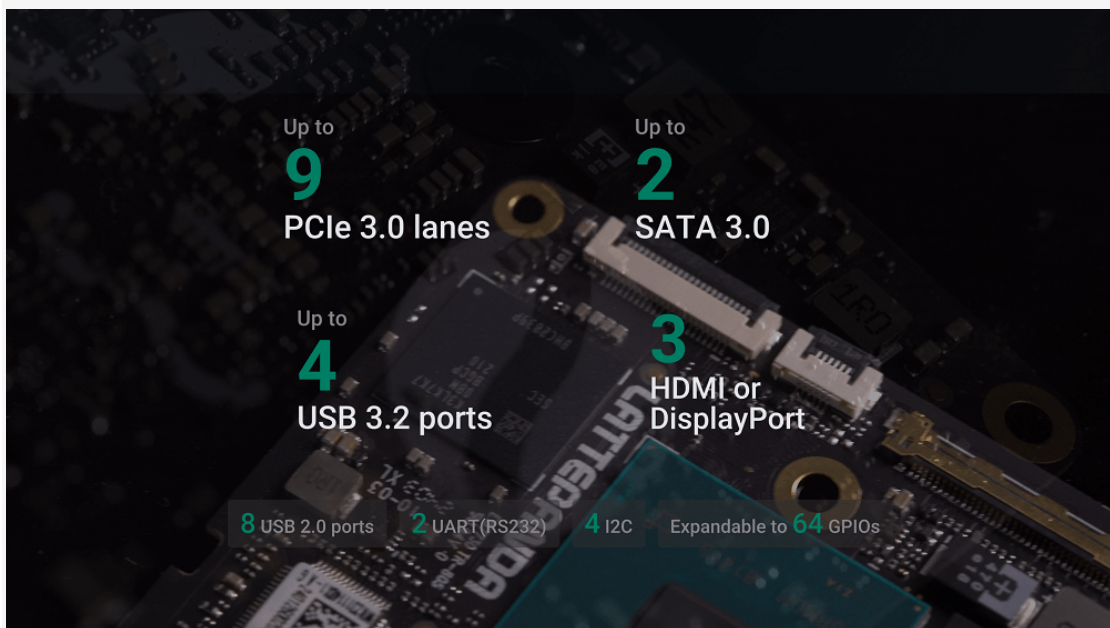
The processor's TDP can be adjusted from 6W to 35W, providing flexibility in power usage and heat output. The 6W setting enables efficient operation with

minimal heat and silent passive cooling, while the 35W setting offers robust performance but requires active cooling.



## Flexible Expansion Pins

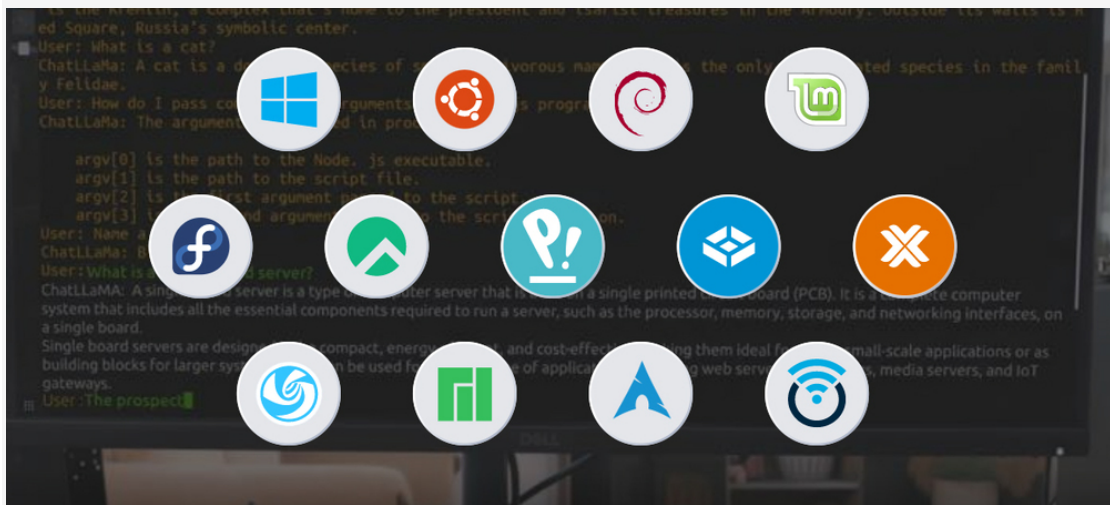
LattePanda Mu compute module exposes extensive pins, such as 3 HDMI/DisplayPort, 8 USB 2.0, up to 4 USB 3.2, 9 PCIe 3.0 lanes, 2 SATA 3.0 and 64 expandable GPIOs. This offers unparalleled flexibility and expandability, allowing you to create the specific solution.



## Multi-System Support



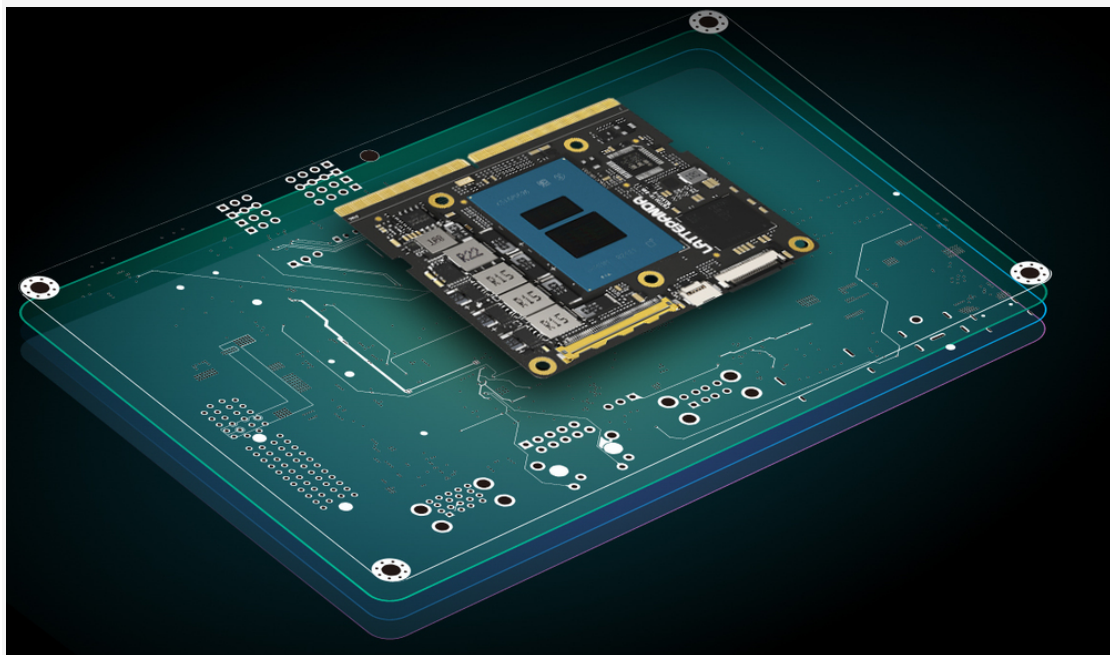
LattePanda Mu x86 computer-on-module supports multiple operating systems, including Windows 10, Windows 11, Ubuntu, ensuring that there is always one that suits your needs.



### Making Carrier Simpler and Easier

LattePanda Mu x86 compute module offers open-source carrier board files and libraries as reference materials, enabling you to fine-tune the carrier board design to meet your specific needs, significantly reducing development time.

[Open-source carrier board files and libraries](#)



### Customized Solutions

LattePanda Team offers customized services, including customized carrier boards, boot screens, BIOS functionality, operating systems, etc. If you have any specific requirements, please feel free to contact us at [solution@lattepanda.com](mailto:solution@lattepanda.com).

The LattePanda Team is dedicated to providing timely and professional support to meet your customization needs.



## Product 2 in this Kit - Lite Carrier Board for LattePanda Mu

### Interfaces Integrated Common Interfaces

This lite carrier board includes USB 3.0, Ethernet, PCIe 3.0, M.2 M key, M.2 E key, HDMI, etc. Its comprehensive integration design and compact size make it more convenient to use and cost-effective.

### Wide Voltage Input

This lite carrier board supports a wide voltage input of 12~20V, allowing direct connection to a 4S lithium battery without the need for an additional voltage regulator module. This wide voltage input design greatly enhances the product's adaptability and portability.

### PCIe 3.0 x4 Expansion Slot

This lite carrier board is equipped with a standard PCIe 3.0 x4 slot, allowing you to easily expand various peripherals, such as graphics cards, sound cards, network cards, etc., providing more powerful performance for your project (this interface is only available when paired with a 12V power supply).

## **M.2 Expansion Slot**

In addition to the PCIe slot, this carrier board also comes with M.2 M key 2230 and M.2 E key 2230 slots, which can easily expand SSD hard drives and WLAN wireless network cards, bringing more possibilities to your project.

## **3.5-inch Standard Size**

This lite carrier board uses the standard size of 3.5-inch embedded motherboards, which is extremely convenient for installation and pairing with other devices. This standardized design allows it to seamlessly integrate into your various projects and systems.

## **Product 3 in this Kit - LattePanda Mu Active Cooler**

The LattePanda Mu Active Cooler is a high-quality cooler designed specifically for the LattePanda Mu compute module. It allows for perfect integration between LattePanda Mu and the carrier board, enabling you to freely build various DIY projects. This low-noise fan ensures stable temperature for your LattePanda Mu, and the heat dissipation fins quickly absorb the heat generated by the CPU. This simple yet effective method keeps your LattePanda Mu in its best condition at all times! The aluminum alloy housing has excellent thermal conductivity and comes with high-quality phase change materials for even better heat dissipation performance.

- Active cooling aluminum alloy heatsink
- Aluminum alloy material, corrosion-resistant and durable

## **SPECIFICATION**

### **LattePanda Mu Compute Module**

- Processor: Intel Processor N100 4 Cores up to 3.4GHz
- Memory: LPDDR5 4800MT/s 8GB with IB ECC supported
- Storage: eMMC 5.1 64GB
- Display: 3 Outputs; Max Resolution 4096 x 2160@60Hz
- I/O
  - PCIe 3.0: up to 9 lanes
  - SATA 3.0: up to 2 ports
  - USB 3.2 (10Gbps): up to 4 ports
  - USB 2.0 (480Mbps): 8 ports
  - I2C, UART and GPIOs
- Power: 9~20V
- Operating System: Windows, Ubuntu

- Environment: 0~60°C; 0~80% relative humidity
- Size: 69.6 x 60mm

## **Lite Carrier Board for LattePanda Mu**

### **Power Input**

- USB Type-C: 15V (Max 3A)
- DC 5.5x2.5mm: 12~20V (Max 10A)

### **Internal Interfaces**

- PCIe 3.0 x4 slot (only available when using 12V power supply)
- M.2 M Key 2230 (PCIe 3.0 x1)
- M.2 E Key 2230 (PCIe 3.0 x1, USB2.0)
- RTC battery socket (CR1220 3V)
- CPU fan socket
- Gravity-4P UART
- Gravity-4P I2C

### **External Interfaces**

- USB 3.2 10Gbps x2
- Gigabit Ethernet
- USB 2.0 x2
- HDMI 2.0
- USB Type-C (for power supply only)
- DC 5.5x2.5mm
- Size: 3.5 inches, 146mm×102mm

## **LattePanda Mu Active Cooler**

- Compatible: LattePanda Mu
- Operating voltage: 5V
- Operating current: 0.35A
- Maximum rotational speed: 4000 RPM
- Wire length: 105mm
- Interface type: PH2.0-4P
- Dimensions: 69.6 \* 50.4 \* 19mm
- Material: Aluminum alloy
- Weight: 69g

## **DOCUMENTS**

- [Official Website](#)

- [Open-source Repository](#)

## SHIPPING LIST

- LattePanda Mu Compute Module x1
- Product Manual x1
- Lite Carrier board x1
- Acrylic Base Plate x1
- Screw Pack for Lite Carrier board x1
- LattePanda Mu Active Cooler x1

**Note: Battery is NOT included**