INTRODUCTION

This lite carrier board(Base Board) is specifically designed for the [LattePanda Mu computer-on-modules](). Together with the LattePanda Mu, this carrier board forms a comprehensive development platform, akin to a Single Board Computer (SBC). It incorporates the most frequently used interfaces such as USB 3.0, Ethernet, PCIe 3.0, M.2 M key, M.2 E key, HDMI, and more. This allows for the connection of a variety of external devices and modules, enabling swift verification and testing of diverse design solutions, thus reducing the product development cycle. It is ideally suited for application in embedded system design.

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.

Open-source Design

The schematic and PCB design files of this carrier board are provided. Utilize these as reference materials to fine-tune according to your specific needs, significantly reducing development time and cost.

Note:

1. It needs to be paired with the LattePanda Mu compute module to use.

2. Before plugging or unplugging LattePanda Mu, any cables, or internal interfaces, it is necessary to disconnect the power supply.

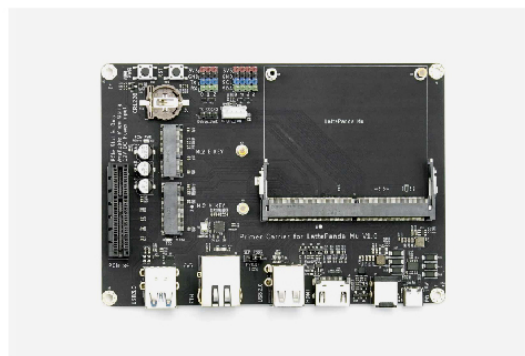3. The PCIe slot of the lite carrier is available only when using a 12V power supply.

Versatile Carrier Boards

DFRobot offers a lite carrier board for the LattePanda Mu, providing a comprehensive development platform with various interfaces for swift design verification.

Additionally, a full-function evaluation carrier board is available, exposing all pins of the LattePanda Mu for extensive hardware and software testing.
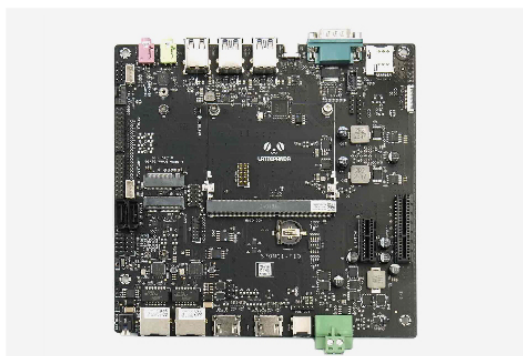
Full Evaluation Carrier   **Lite Carrier**

Carrier boards of LattePanda Mu

FEATURES

- Wide voltage input
- Gigabit Ethernet

- 2 x USB3.2 10Gbps, 2x USB 2.0
- HDMI 2.0, supports 4K video output
- PCIe 3.0 x4 expansion slot
- Dual M.2 expansion slots
- 3.5-inch embedded motherboard standard size
- Open-source Design

SPECIFICATION

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

DOCUMENTS

- [Design Files (KiCad)](#)

SHIPPING LIST

- Lite Carrier board x1
- Acrylic Base Plate x1
- Screw Pack for Lite Carrier board x1
- CR1220 Button Battery x1