

INTRODUCTION

LattePanda 2 Alpha is a high-performance, pocket-sized SBC(single board computer) with low power consumption that runs full Windows 10 or Linux operation system. It is widely used in edge computing, vending, advertising machine, industrial automation, etc. Whether you're a DIY maker, IoT (Internet of Things) developer, system integrator, or solution provider, LattePanda is your powerful development board that can empower creation and accelerate your productivity.

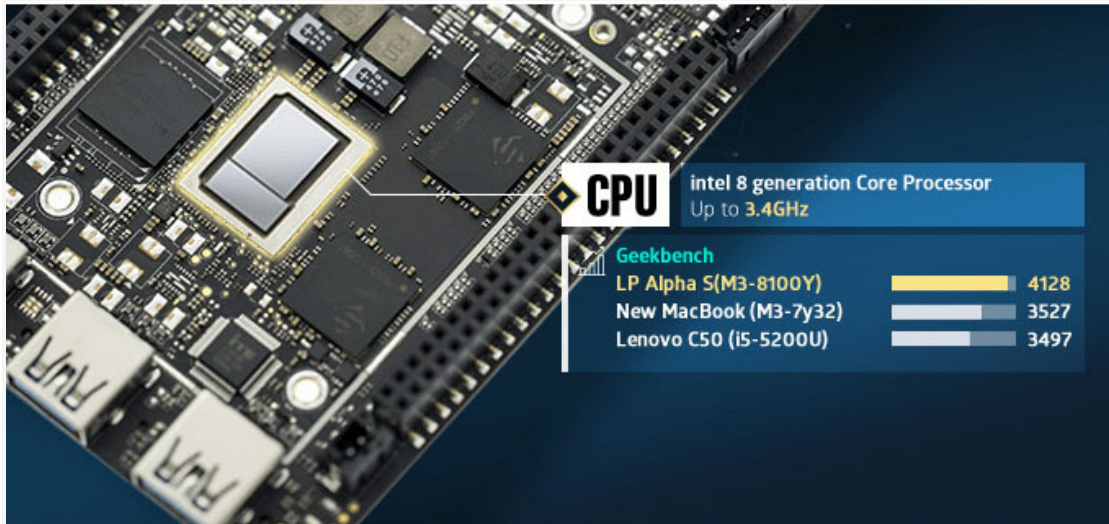


The graphic features a central image of the LattePanda ALPHA board with a cooling fan. To the left, a vertical list shows the 'LattePanda series' including V1, Delta, and Alpha. The word 'Performance' is at the top, 'Design' is at the bottom left, and 'Price' is at the bottom right. The LattePanda logo and website URL are in the top right. Three feature boxes are on the right: 'Windows 10 & Linux', 'Intel Core M Processor', and 'Small Volume & High Performance'.

Key Feature

- **Intel® Core™ M3-8100Y**, Dual-Core, 1.1-3.4GHz
- Intel® UHD Graphics 615
- **8GB** Memory
- **Dual-Band 2.5GHz/5GHz Wi-Fi** & Bluetooth 4.2 & Gigabit Ethernet
- **USB3.0 x3, USB Type-C x1**
- **2 x M.2 PCIe** (Support B&M Key and A&E Key)
- Support Windows 10 & Linux OS
- Integrated Arduino Coprocessor ATMEL 32U4
- Powered by PD adapter / 12V DC / 7.4V battery

The LattePanda 2 Alpha 800s based on Intel Core™ m3-8100Y, is a Dual-Core 1.1GHz CPU that bursts up to 3.4GHz, Intel® UHD Graphics 615 integrated into the processor deliver enhanced media conversion, fast frame rates, and 4K Ultra HD (UHD) video. All of this computing power dissipates only 8W power, which is the perfect choice in terms of features and price as the main robotics controller, interactive project core, IoT edge device, or AI brain.



The LattePanda 2 Alpha is perfect for makers alike who need a small, portable, and light SBC for their ultimate project! DIY project running Windows or Linux, LattePanda SBC has been a popular hit and choice for many people who wish to enjoy playing all of their old and new favorites from one small, powerful system. Given its incredibly small size, it can be easily hidden, functioning as the secretly powerful brains behind your coolest project ever.

PERFORMANCE STYLED FOR YOUR POCKET

70%
of iPhone Pro Max size

Pocket Size

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Ultra-Thin Design



13.5mm

Confine into any space

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LattePanda pre-installed **Win10 pro** operating system but also supports Linux. We have the complete installation tutorial in our Docs and provide the latest version support in time.



UP TO 42 EXPANDABLE INTERFACES

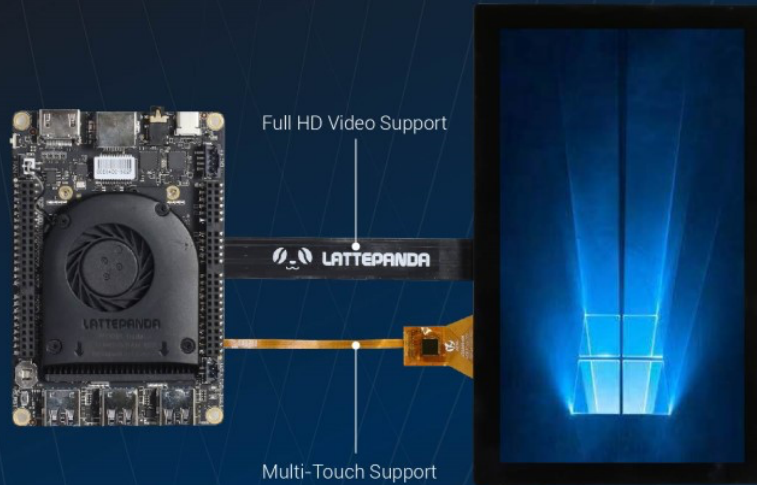
TRUE HACKABILITY AND RICH PLAYABILITY



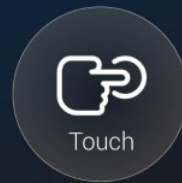
Embedded DisplayPort (commonly referred to as eDP) is a full-digital interface based on the VESA DisplayPort architecture and protocol, which can use simpler connectors and fewer pins to transmit high-resolution signals as well as allow higher transmission speeds as opposed to LVDS cables.


Another benefit of the eDP interface is that they allow you to easily connect your LattePanda directly to an LCD.

PERFECT FOR EMBEDDED SOLUTIONS



FPC (Flexible Printed Circuit) Cable
All Power, Data, and Control Signal through One Single Assembly
No Need of Additional Power Supply



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Type-C interface allows the seamless connectivity of data, PD power supply, and 4K video output, which not only solves the problem of messy desktop wires but also makes it more convenient to transfer equipment. With more efficient transmission capacity, richer expandability, simple and convenient connection, it has become one of the world's consumer electronics standards.



USB TYPE-C CONNECTOR



-  Reversible and robust connector
-  Power Delivery
-  4K DP video signal (3850x2160@60Hz)
-  Up to 5 Gbps data transfer rates

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There are two **M.2 PCIe connectors** (B&M Key and A&E Key), which enable various expandable capabilities including SSD, GPU, Wired, and Wireless Network.

UNLEASH THE HUGE POTENTIAL FOR YOUR IDEA



-  SSD
-  LAN
-  Wi-Fi
-  Graphic Card

M.2

M.2 M-Key
Alpha
PCIe 4x+SATA+NVMe
Delta
PCIe 2x

M.2 E-Key
PCIe 2x
USB2.0
UART

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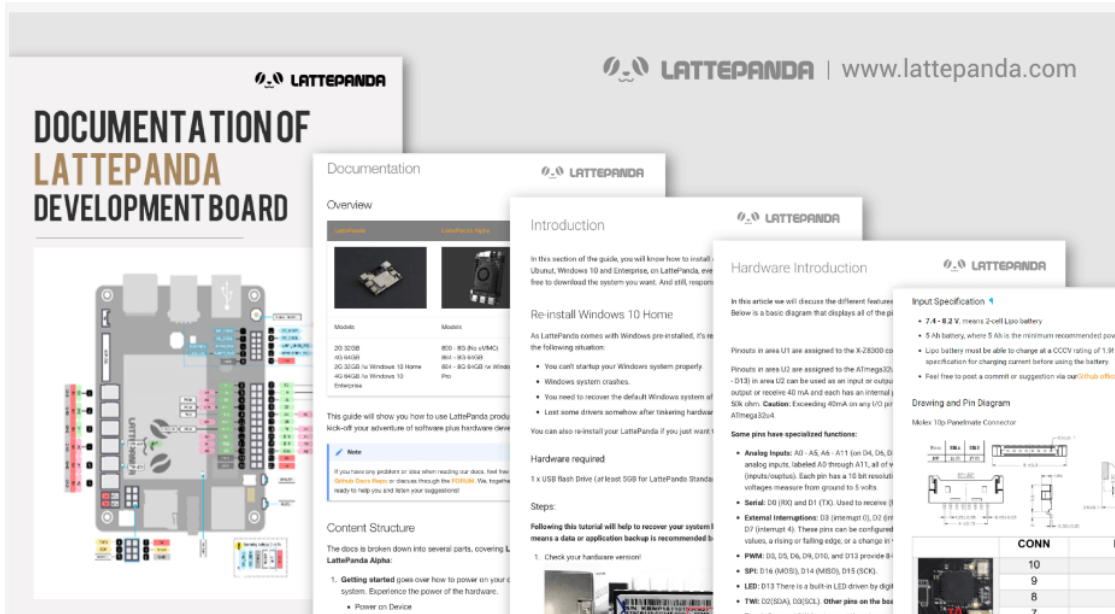
In addition, LP has more types of interfaces, which can be directly connected with, for example, HDMI and Internet cable. Independent USB 3.0 interfaces can be connected to USB2.0 & 3.0 devices. No need for additional docking

stations to connect to peripherals, LP can be embedded in your project like a plug-in device. Say goodbye to your bulky laptop!



The teams here at LattePanda have worked hard to provide careful and thorough guides and documentation for our products, and their effectiveness has become amplified by [our strong community](#) of LattePanda users who have made posts, threads, and contributions to others in the community. With our combined strength, no project is out of reach for any user!





Comparison Tables

Model	CPU	Core	Memory	Storage	Operating System
LattePanda Alpha 800s	Intel Core M3-8100Y	2	8 GB	0GB	N/A
LattePanda Alpha 864s	Intel Core M3-8100Y	2	8 GB	64GB	N/A
LattePanda Alpha 864s (Win10 Pro activated)	Intel Core M3-8100Y	2	8 GB	64GB	Windows 10 Pro Activated

SPECIFICATION

- CPU: Intel Core m3-8100y
- Core: 1.1-3.4GHz Dual-Core, Four-Thread
- Benchmark (PassMark): Up to 4128, double computing power compared with same price range products in the market
- Graphics: Intel HD Graphics 615, 300-900MHz
- RAM: 8GB LPDDR3
- External Memory: 1x M.2 M Key, PCIe 4x, Supports NVMe SSD and SATA SSD
- External Memory: 1x M.2 E Key, PCIe 2x, Supports USB2.0, UART, PCM
- Connectivity: WIFI 802.11 AC, 2.4G & 5G
Dual-Band Bluetooth 4.2
Gigabit Ethernet

- USB Ports: 3x USB 3.0 Type A
1x USB Type C, supports PD, DP, USB 3.0
- Display: HDMI Output
Type-C DP Support
Extendable eDP touch displays
- Co-processor: Arduino Leonardo
- GPIO & Other Features: 2x 50p GPIOs including I2C, I2S, USB, RS232, UART, RTC, Power Management, Extendable power button, everything you need
- OS Support:
Windows 10 Pro

Linux Ubuntu
- Dimension: 115mm * 78mm * 14 mm

PROJECTS

- [Project 1: Building The Most Smallest Liquid Cooled PC - Mini PC](#)
- [Project 2: Merakit Mini PC Touch Screen Support Arduino LattePanda](#)

More:

- [How to Make a Smallest Gaming Pc at home](#)

DOCUMENTS

- [LattePanda official community](#)
- [LattePanda Documentation](#)
- [FAQ](#)
- [FCC/CE Certifications](#)
- [Tutorial: Install Linux](#)
- [Tutorial: Adjust Cooling Fan](#)

SHIPPING LIST

- LattePanda Alpha 800s x1
- Active cooling fan (Assembled) x1
- 45w PD Power adapter (with EU & US standard power cord) x1
- Dual-band antenna x2
- RTC Battery (Assembled) x 1
- User Manual x 1