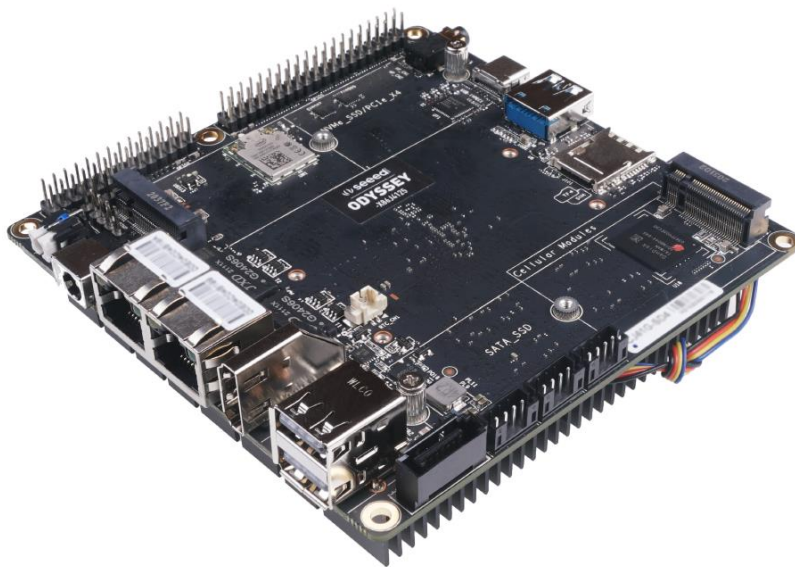


## **ODYSSEY - X86J4125864 Win10 Enterprise Activated Mini PC (Linux and Arduino Core) with 8GB RAM + 64GB eMMC (TELEC) / Dual Gigabit Ethernet NICs**

### **SKU**

102110549

ODYSSEY - X86J4125 allows you to simply build Edge Computing applications with powerful CPU and rich communication interfaces. The ODYSSEY - X86J4125, based on Intel Celeron J4125, is a Quad-Core 2.0GHz CPU that bursts up to 2.7GHz. There is also an onboard ATSAMD21 Core, an ARM Cortex-M0+ MCU that allows you to program Arduino on the x86 platform.



Description

### Note

- Component shortages have resulted in long lead times for ODYSSEY-X86J4125864(Win10 Enterprise Activated)(TELEC) , we recommend [ODYSSEY -X86J4125864 V2\(Win11 Pro Activated\)\(TELEC\)](#)

### Note

This is the **TELEC Version of the ODYSSEY-X86J4125864 with no power adapter**. Non-Japanese users who needs power supply, please buy the [regular version](#).

### Tip

This version of ODYSSEY - X86J4125864(Win 10 Enterprise Activated) has 64GB onboard eMMC storage and pre-installed Windows 10 Enterprise.

8GB  
LPDDR4 RAM

64GB  
eMMC Storage  
optional

Dual band  
Wi-Fi  
BLE 5.0

Dual  
Gigabit  
Ethernet Ports

Arm Cortex-M0  
ATSAMD21  
On-board

**INCLUDES ALL THE POWERFUL FEATURES OF MINI PC,  
STARTING FROM \$215.00**

Pre-installed  
Win10  
Enterprise

2 x M.2  
PCIe

Raspberry Pi  
40-Pin  
Compatible

HeatSink  
+  
Fan  
optional

Grove  
Ecosystem

## Key Feature

- **Intel® Celeron® J4125**, Quad-Core 2.0-2.7GHz
- Dual-Band Frequency 2.4GHz/5GHz WiFi
- **Intel® UHD Graphics 600**
- Dual Gigabit Ethernet
- Integrated **Arduino Coprocessor ATSAMD21 ARM® Cortex®-M0+**
- **Raspberry Pi 40-Pin Compatible**
- 2 x M.2 PCIe (B Key and M Key)
- Support Windows 10 & Linux OS
- Compatible with Grove Ecosystem

## Description

Edge Computing devices are playing an increasingly important role in the field of IoT. Nowadays, a computer is not just a big rectangular black box under the desk, or a small portable device working on your knees. Computers are ubiquitous devices that span calculating, communicating, and data storage. Based on this definition, here we would like to introduce our new product – the **ODYSSEY - X86J4125**.

ODYSSEY is a series of SBC (Single Board Computer), allowing you to build Edge Computing applications with ease. The ODYSSEY - X86J4125, based on Intel Celeron J4125, is a Quad-Core 2.0GHz CPU that bursts up to 2.7GHz. It includes all the powerful features of Mini PC such as including an 8GB LPDDR4 RAM, 64GB eMMC Storage(optional), onboard Wi-Fi/BLE, Dual Gigabyte Ethernet Ports, Audio Input and Output, USB Ports, HDMI, SATA Connectors and PCIe, however, within a cost-effective price. With simple connections to Mouse, Keyboard and Monitor to ODYSSEY - X86J4125, you will get a Desktop Mini PC right away. With eMMC versions, you even have the Windows 10 Enterprise pre-installed!

Just simply connect to a mouse, a keyboard and a monitor with the ODYSSEY – X86J4125, you will get a powerful Desktop Mini PC that can run Windows and Linux OS.



With **Dual Gigabit Ethernet**, you can build the OpenWrt project and pfSense with ease.

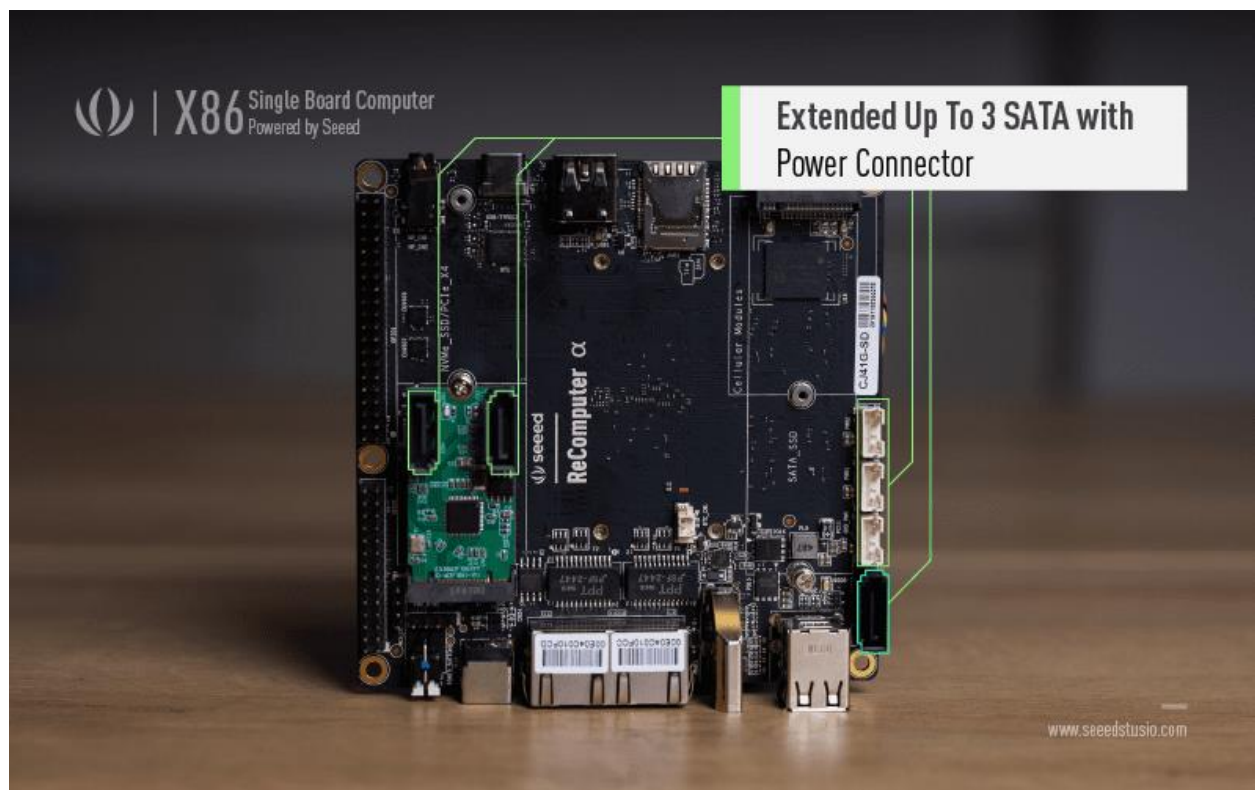
There are also **two of M.2 PCIe (B Key and M Key)**, which enables various expandable capabilities including Hard Drives, SSD, GPU, 4G, and even 5G cellular network connectivity.



## Dual M.2 - Unleash The Potential



You can extend up to **three SATA** with the power connector to build your NAS server.



With ODYSSEY - X86J4125, you can build your own NAS (Network-Attached Storage), your high-performance Virtual Router, or a 4G LTE Gateway in your IoT applications. There is an onboard ATSAM21 Core, an ARM Cortex-M0+ MCU that allows you to program Arduino on the x86 platform. The Raspberry Pi compatible 40-Pin provides hardware compatibility to most of the Pi HATs in the market. All of these features providing endless possibilities of using the ODYSSEY - X86J4125.

Currently, the ODYSSEY - X86J4125 can work with the [Grove Base HAT for Raspberry Pi](#) and GPIO Groves.



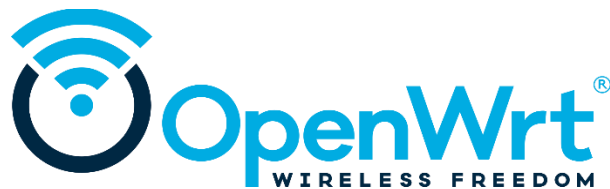
The ODYSSEY - X86J4125 is more than just a computer, with the Arduino Co-processor onboard, it can be used to connect with sensors, gyroscope, and much more. Why don't you start exploring your IoT journey from here! We have [over 300 Grove modules and Sensors](#) for you to choose from.



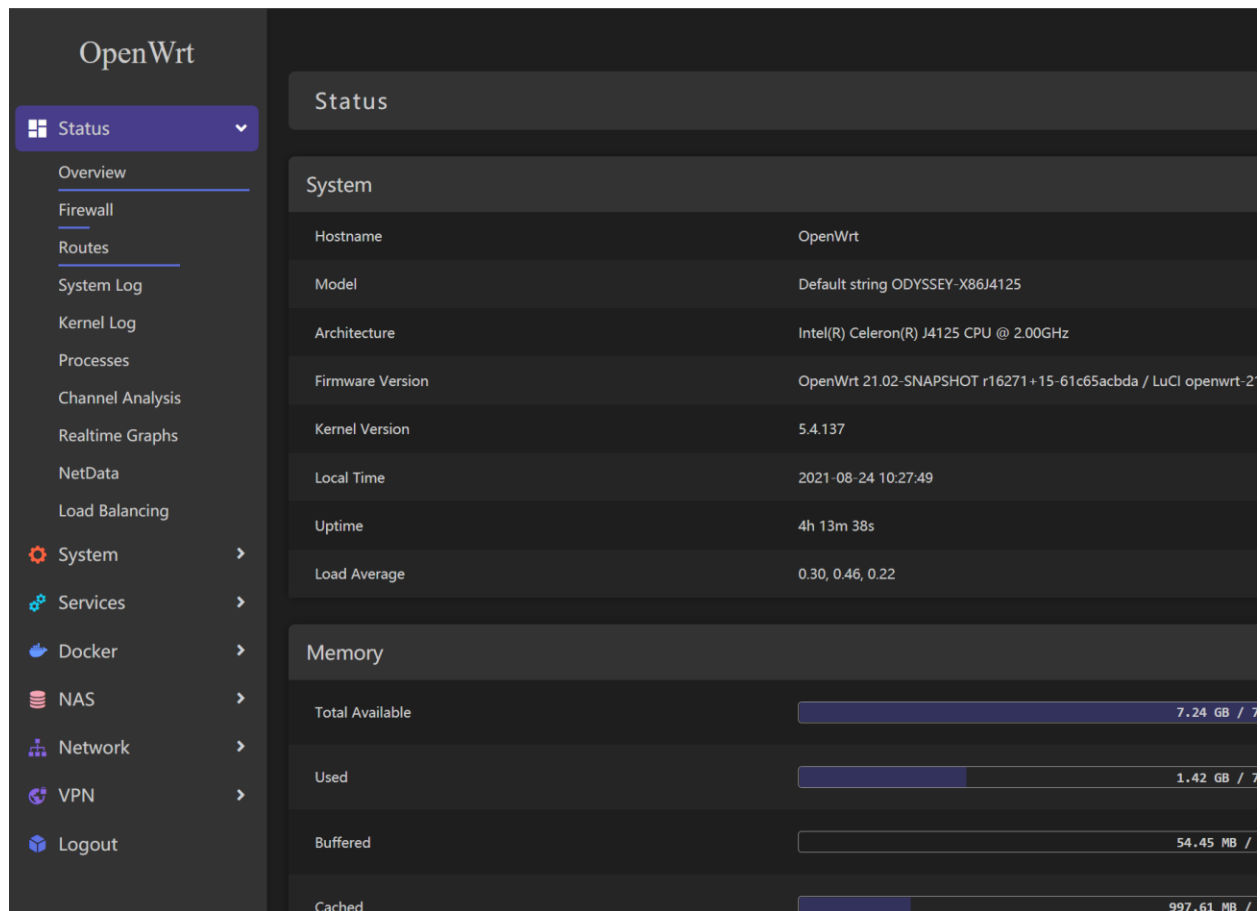
At Seeed, you can also design your solution all in one page where you choose the desired SBC, any compatible mission board (HATs, expansions) that you want, I/O modules, and nicely place them in the suitable enclosures/cases such as [re\\_computer Case](#). Rest assured, as we have tested full compatibility for all of the products listed on the page. Try it now [here](#) and save you time to find hardware compatibility!

### **OpenWrt Supported**

You can [flash OpenWrt firmware](#) to this board and turn this board into a software router!



OpenWrt is an open-source Linux operating system which runs on embedded devices/routers. It offers more features, performance, and security than a traditional router. It has a filesystem that's fully writable and includes a package management system. You can make use of these packages to suit your applications in various ways. Once you connect this board to your home network and access the router from a web browser, you will be presented with a beautiful and interactive dashboard as follows.

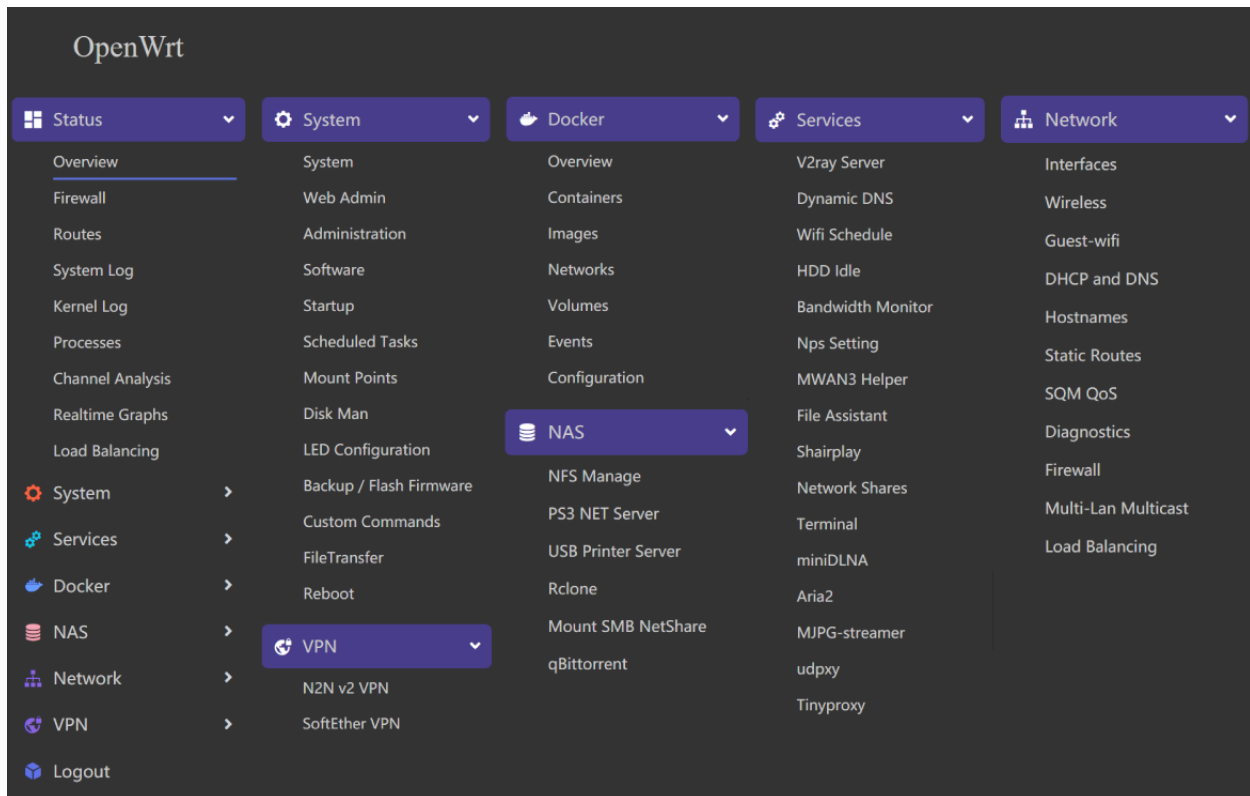


You can navigate in this dashboard, and you will have access to a bunch of features such as:

- Increase overall network performance when multiple devices are connected
- Share files between devices via an external storage drive connected directly to the router
- Increase network security
- Run a BitTorrent client from the router
- Connect a printer directly to the router to create a networked printer
- Limit bandwidth usage of a particular device in the network
- Active queue management
- Real time network monitoring
- Create Dynamic DNS
- Set Up a VPN client or server

- Block ads on the network

By utilizing the above features, you will have unlimited possibilities with this mini router!



Supports From the Community

Comparison Tables of ODYSSEY - X86J4125

| Model                                                              | CPU                 | Core                           | Operating System                    | Memory    | Fan      |
|--------------------------------------------------------------------|---------------------|--------------------------------|-------------------------------------|-----------|----------|
| <a href="#">ODYSSEY - X86J4125864</a>                              | Intel Celeron J4125 | 4 Core 2.0GHz, Burst to 2.7GHz | Windows 10 Enterprise (Unactivated) | 64GB eMMC | Built-in |
| <a href="#">ODYSSEY - X86J4125864(Win10 Enterprise Activated )</a> | Intel Celeron J4125 | 4 Core 2.0GHz,                 | Windows 10 Enterprise Activated     | 64GB eMMC | Built-in |

| Model                                 | CPU                 | Core                           | Operating System    | Memory | Fan |
|---------------------------------------|---------------------|--------------------------------|---------------------|--------|-----|
|                                       |                     | Burst to 2.7GHz                |                     |        |     |
| <a href="#">ODYSSEY - X86J4125800</a> | Intel Celeron J4125 | 4 Core 2.0GHz, Burst to 2.7GHz | No Operating System | N/A    | N/A |

## Specification

|                    |                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Components</b>  | ODYSSEY - X86J4125                                                                                                 |
| <b>Processor</b>   | Intel® Celeron® J4125 (Frequency: 2.0 - 2.7GHz)                                                                    |
| <b>Coprocessor</b> | Microchip® ATSAMD21G18 32-Bit ARM® Cortex® M0+                                                                     |
| <b>Graphics</b>    | Intel® UHD Graphics 600 (Frequency: 250 – 750MHz)                                                                  |
| <b>Memory</b>      | LPDDR4 8GB                                                                                                         |
| <b>Wireless</b>    | Wi-Fi 802.11 a/b/g/n/ac @ 2.4/5 GHz HT160                                                                          |
| <b>Networking</b>  | Intel® I211AT PCIe Gigabit LAN, Supports Wake-On-LAN, Supports PXE                                                 |
| <b>Audio</b>       | Microphone + headphone Combo Connector                                                                             |
| <b>Headers</b>     | 1 × 40-Pin header compatible with Raspberry Pi<br>1 × 28-Pin header (SAMD21G18)<br>1 × Front Panel Audio Connector |

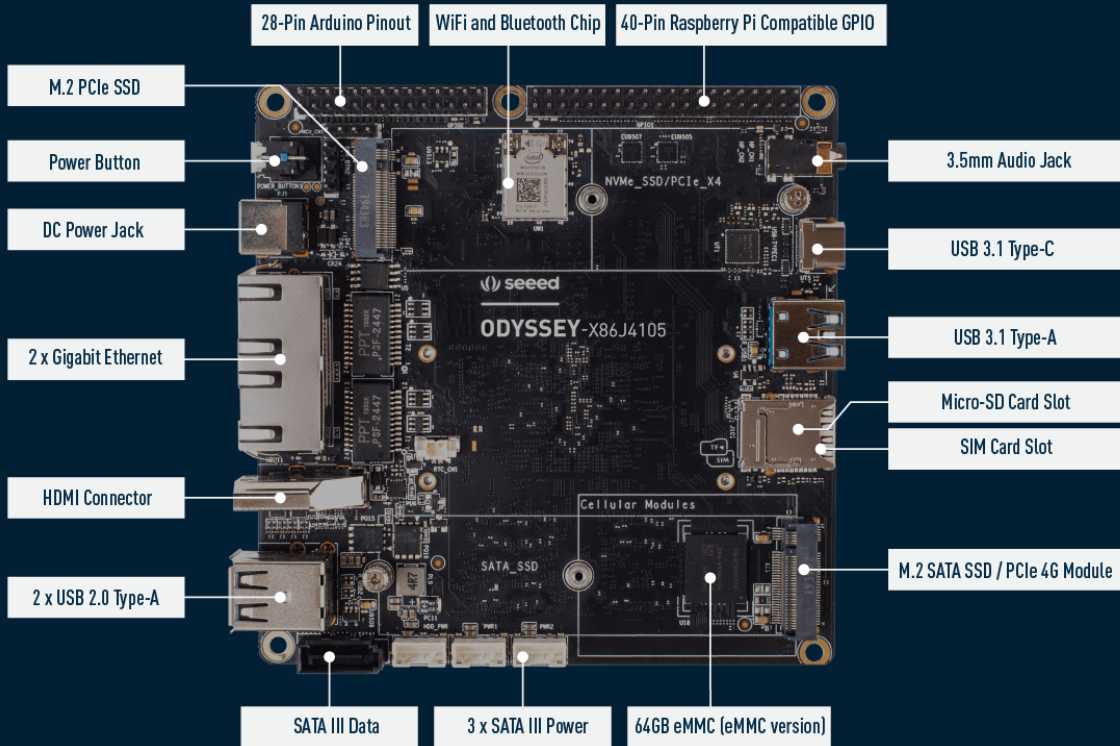
|                              |                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Components</b>            | ODYSSEY - X86J4125                                                                                                                                             |
|                              | 1 × 4-Pin header (UART function from SAMD21G18)<br>1 × Fan Port (4 pin 1.25mm PWM 5V)<br>3 × 4-Pin SATA Power Connector<br>1 × 4-Pin header (Power and Switch) |
| <b>USB</b>                   | USB 2.0 Type-A x2, USB 3.1 Type-A x1, USB 3.1 Type-C x1                                                                                                        |
| <b>Video Interfaces</b>      | HDMI2.0a: Up to 4096x2160 @ 60Hz 24bpp / DP1.2a: Up to 4096x2160 @ 60Hz 24bpp                                                                                  |
| <b>Expansion Slots</b>       | M.2(Key B, 2242/2280): SATA III, USB2.0, UIM; M.2 (Key M, 2242/2280): PCIe 2.0 ×4; Micro SD card Socket; SIM Card Socket; SATA III                             |
| <b>RTC</b>                   | JST 1.0 CR2032 3V                                                                                                                                              |
| <b>TPM</b>                   | Built-in TPM (2.0)                                                                                                                                             |
| <b>Power</b>                 | DC Jack 5.5/2.1mm or Type-C PD; DC Jack input: 12-19V DC; Type-C input: 15V DC                                                                                 |
| <b>Dimensions</b>            | 110x110mm                                                                                                                                                      |
| <b>Certifications</b>        | FCC, CE, TELEC                                                                                                                                                 |
| <b>Operating temperature</b> | 0°C~75°C                                                                                                                                                       |

#### Applications

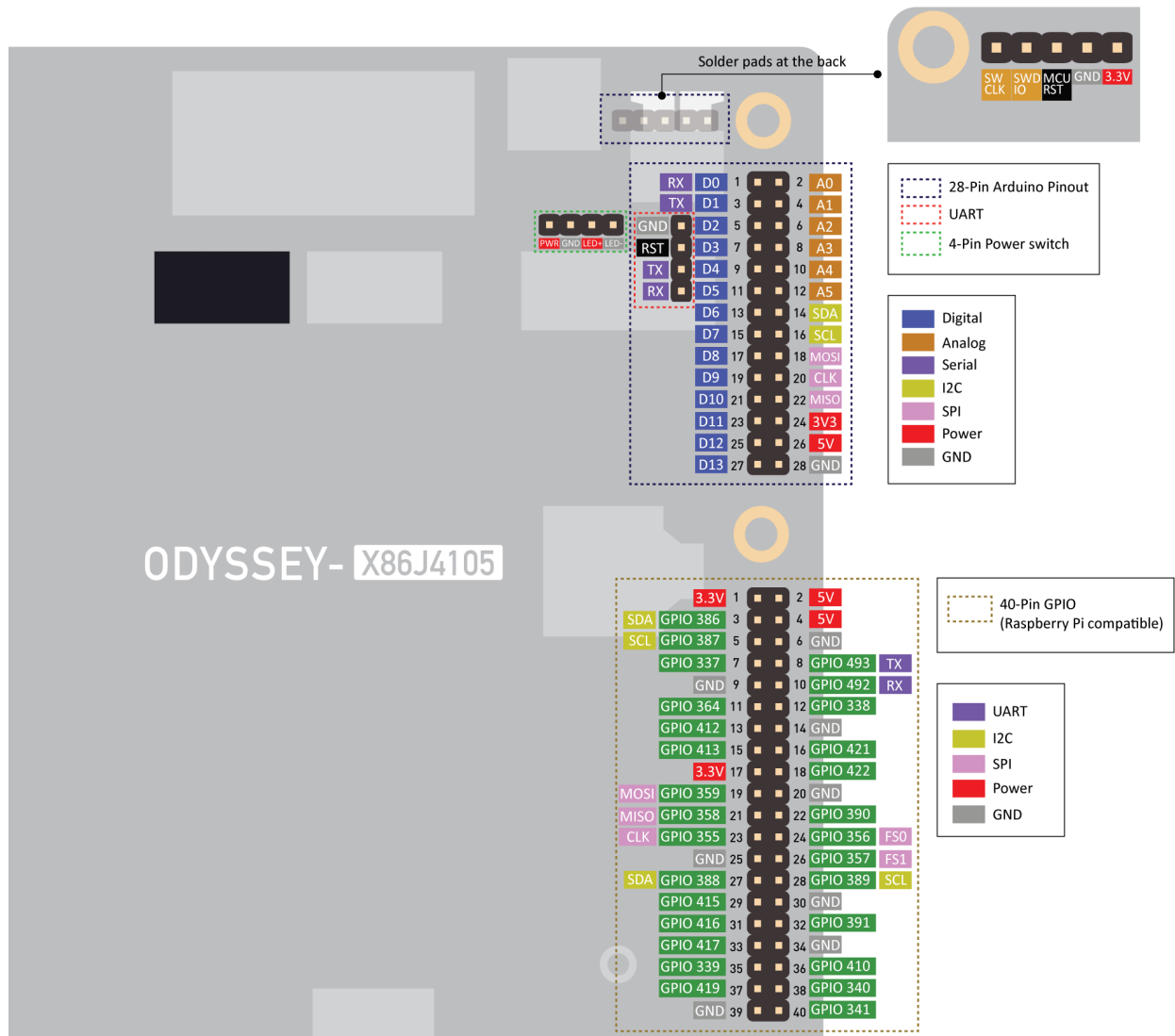
- Mini PC
- NAS (Network-Attached Storage)

- Edge Computing
- Router
- Robotics
- Industrial Applications
- Media Center
- IT Industry
- Educational Fields
- Thin Client
- Server Cluster
- IoT Gateway

Hardware Overview



## Pinout Diagram



## Part List

- ODYSSEY - X86J4125 x 1
- User Manual x 1
- SATA Cable x 1
- Antenna x 2
- RTC Battery x 1
- Heat Sink(Assembled)
- Cooling Fan (Assembled) (Included in eMMC versions)

## Note

If you are looking for open source SBC for commercial and industrial needs. Seeed provides [customization service](#) based on BeagleBone series boards. [Seeed Studio BeagleBone® Green\(BBG\)](#) and [Seeed Studio BeagleBone® Green Wireless \(BBGW\)](#) provide more stable industrial deployment scenarios.

