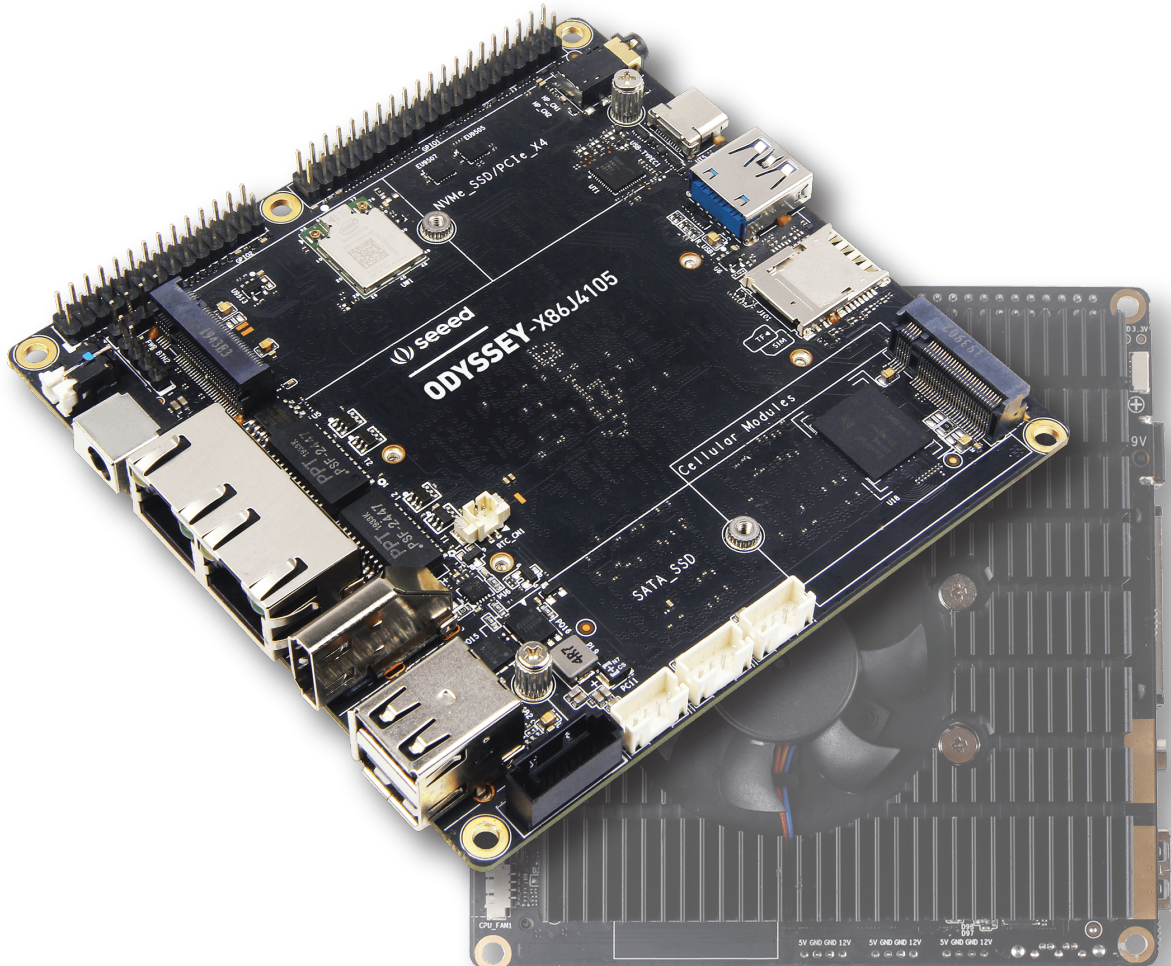


ODYSSEY - X86J4105



Most Expandable X86 Mini Computer



Reference Guide

Revision A
March 30, 2020

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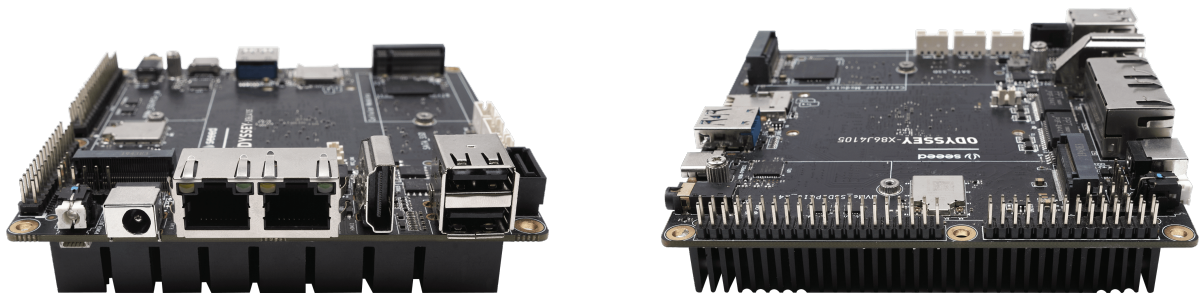
Overview

Description

ODYSSEY is a series of SBCs (Single Board Computer), allowing you to build Edge Computing applications with ease. The ODYSSEY - X86J4105, based on Intel Celeron J4105, is a Quad-Core 1.5GHz CPU that bursts up to 2.5GHz. It includes all the powerful features of a Mini PC including a 8GB LPDDR4 RAM, 64GB eMMC Storage(optional), onboard Wi-Fi/BLE, Dual Gigabit Ethernet Ports, Audio Input and Output, USB Ports, HDMI, SATA Connectors and PCIe. By connecting ODYSSEY - X86J4105 to a Mouse, Keyboard and a Monitor, a Desktop Mini PC can be built. The ATSAM21 Arduino Core allows users to program Arduino on the X86 platform and also the 40-Pin Raspberry Pi compatible connector support various Pi HATs to expand projects.

Features

- Intel® Celeron® J4105, Quad-Core 1.5-2.5GHz
- Dual-Band Frequency 2.5GHz/5GHz Wi-Fi & Bluetooth 5.0
- Intel® UHD Graphics 600
- Dual Gigabit Ethernet
- Integrated Arduino Coprocessor ATSAM21 Arm® Cortex®-M0+
- Raspberry Pi 40-Pin Compatible
- 2 x M.2 PCIe (B Key and M Key)
- Compatible with Grove Ecosystem

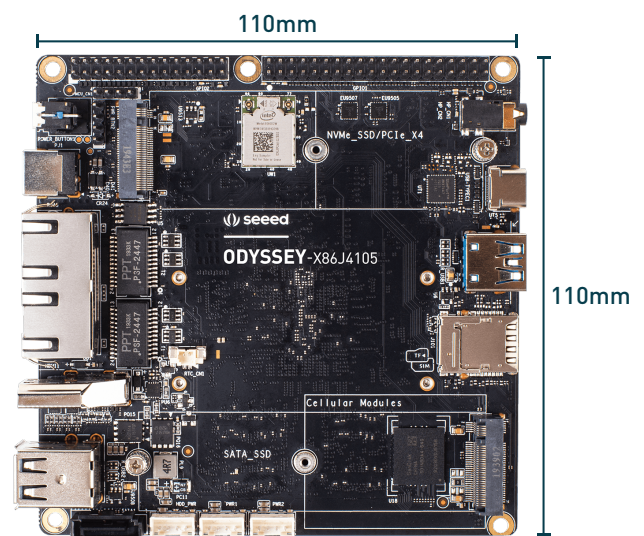


Applications

- Mini PC
- NAS (Network-Attached Storage)
- Edge Computing
- Router
- Robotics
- Industrial Applications
- Media Center
- IT Industry
- Education
- Thin Client
- Server Cluster
- IoT Gateway

Specifications

- Processor: Intel® Celeron® J4105 (Frequency: 1.5 - 2.5GHz)
- Coprocessor: Microchip® ATSAM21G18 32-bit Arm® Cortex® M0+
- Graphics: Intel® UHD Graphics 600 (Frequency: 250 – 750MHz)
- Memory: LPDDR4 8GB
- Storage: 64GB eMMC V5.1 (eMMC version)
- Wireless: Wi-Fi 802.11 a/b/g/n/ac @ 2.4/5 GHz HT160 & Bluetooth® 5.0
- Networking: Intel® I211AT PCIe Gigabit LAN (Supports Wake-On-LAN, Supports PXE)
- Audio: Microphone + headphone Combo Connector
- Headers:
 - ▶ 1 × 40-Pin Header Compatible with Raspberry Pi
 - ▶ 1 × 28-Pin Header (SAM21G18)
 - ▶ 1 × Front Panel Audio Connector
 - ▶ 1 × 4-Pin Header (UART function from SAM21G18)
 - ▶ 1 × Fan Port (4 pin 1.25mm PWM 5V)
 - ▶ 3 × 4-Pin SATA Power Connector
 - ▶ 1 × 4-Pin header (Power and Switch)
- Expansion Slots:
 - ▶ 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
- USB:
 - ▶ USB 2.0 Type-A x2
 - ▶ USB 3.1 Type-A x1
 - ▶ USB 3.1 Type-C x1
- Video Interfaces:
 - HDMI2.0a: Up to 4096x2160 @ 60Hz 24bpp
 - DP1.2a: Up to 4096x2160 @ 60Hz 24bpp
- RTC: JST 1.0 CR2032 3V
- TPM: Built-in TPM (2.0)
- Power: DC Jack 5.5/2.1mm or Type-C PD (DC Jack input: 12-19V DC; Type-C input: 12V DC)
- Dimensions: 110x110mm
- Certifications: FCC, CE



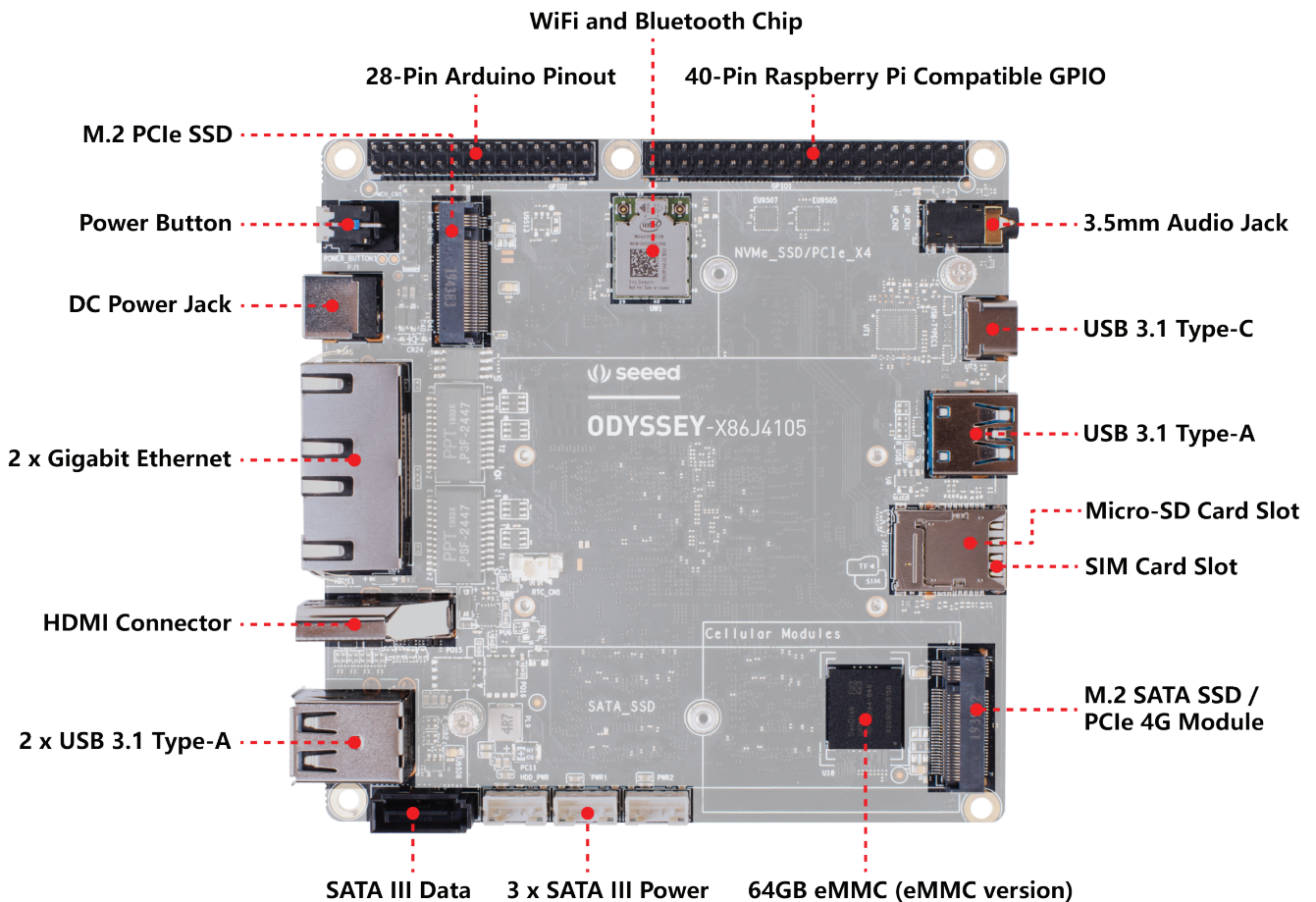
ODYSSEY - X86J4105 Variants

ODYSSEY - X86J4105 is offered in different versions based on the pre-installed operating system and the onboard storage capacity.

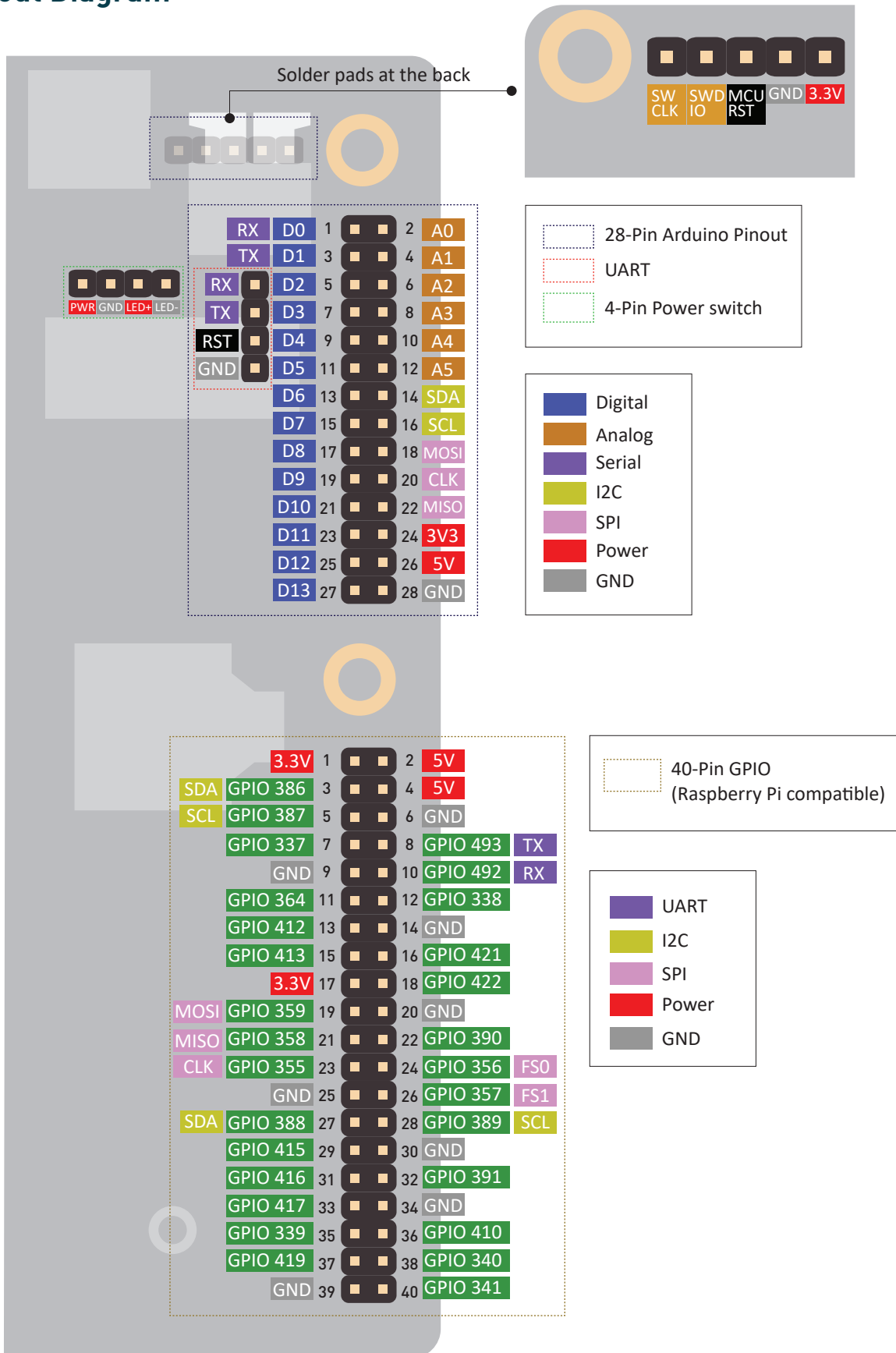
SKU	Model	Memory	Operating System
102110397	ODYSSEY - X86J4105864	64GB eMMC	Windows 10 Enterprise (Unactivated)
102110398	ODYSSEY - X86J4105864 (Win 10 Enterprise Activated)	64GB eMMC	Windows 10 Enterprise (Activated)
102110399	ODYSSEY - X86J4105800	No eMMC	No Operating System

Hardware Overview

Component details



● Pinout Diagram



If you want to learn about getting started with this board such as setting up the software and other details, please visit the product wiki at

<http://wiki.seeedstudio.com/ODYSSEY-X86J4105/>

If you still have any further questions, please visit

forum.seeedstudio.com

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[GCS22.8.100.4.2.I](#) [GLS11.2.053.2.2.E](#) [A20-OLINUXINO-LIME-E16GS16M](#) [A20-OLINUXINO-LIME-S16M](#) [A20-OLINUXINO-LIME2-](#)
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[S16M-IND](#)