DEBIX Enclosure User Guide

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Complied by: Polyhex Technology Company Limited (http://www.polyhex.net/)

DEBIX Enclosure is an aluminium alloy shell designed for DEBIX Model A/B, with a compact appearance and groove design to increase the heat dissipation surface area and enhance the heat dissipation effect. It has reinforced toughness, dustproof, anti-vibration, anti-shock characteristics, while maintaining portability. Which all works together so it can protect the internal electronic components to ensure they function as normal under various scenarios.

Figure 1 EMC-7090B

REVISION HISTORY		
Rev.	**Date**	**Description**
1.0	2023.10.12	First edition

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Chapter 1 DEBIX Enclosure Introduction

The DEBIX Fanless Aluminum Enclosure is designed specifically for DEBIX Model A and Model B, with a compact appearance and surface groove design to increase heat dissipation area, enhance heat dissipation effect, and ensure stable operation of the device; at the same time, it retains all the ports of DEBIX.

Main features:

- It encompasses a DEBIX Model A or a DEBIX Model B

- Rugged aluminum enclosure with groove design to increase heat dissipation area

- A squared off cut out on the right side of the enclosure with a stick-on plastic baffle to prevent the Wi-Fi signal blocking

- A round mounting socket is reserved on the right side of the enclosure for an external Wi-Fi antenna

1.1. Overview

Circular hole for an external Wi-Fi antenna
Square hole to prevent Wi-Fi signal blocking

Stick-on plastic baffle

Figure 2

DEBIX Enclosure supports DEBXI Model A/B, the specifications are as follows:

Table 1 DEBIX Enclosure specification

System	
Motherboard	DEBIX Model A/B
Model	EMC-7090B
Interface	
Ethernet	1 x RJ45 Gigabit Ethernet port
USB	(1) 2 x USB 2.0 Type-C interface (2) 4 x USB 3.0 Host double A-frame
HDMI	1 x Type A HDMI female interface
Audio	1 x audio socket interface
Key	(1) 1 x Reset interface (2) 1 x ON/OFF interface
Slot	1 x Micro SD card interface

Mechanical & Environmental	
Material	Aluminum alloy
Dimension	93mm(D) x 72mm(W) x 30mm(H)
Weight	175g (Rubber pad not included)
Temperature-resistant	-40 °C to 85 °C

1.2. Composition

The DEBIX Enclosure consists of a back cover panel, a right PC blank and a top cover as shown below:

Figure 3

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1.3. Interface

Figure 4

- The right side of the enclosure

  - Designed with a square cutout and a plastic baffle to prevent Wi-Fi signal blocking

  - A round mounting hole cutout reserved for external Wi-Fi antenna

  - Two small button key holes and a Micro SD card slot hole

- The left side of the enclosure is designed cutouts for with two USB Type-A port and a network port.

- The front side of the enclosure is designed with support for:

  - two USB Type-C type port

  - one HDMI Type-A female port

  - one audio 3.5mm socket

1.4. Packing List

- 1 x aluminum alloy enclosure

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- 1 x CPU thermal conductive silicone pad

- 1 x Right PC blank

- All screws needed

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Chapter 2 Installation Guide

2.1. Installation

1. First, paste the CPU thermal conductive silicone pad on the front of the DEBIX board, as shown in the figure below:
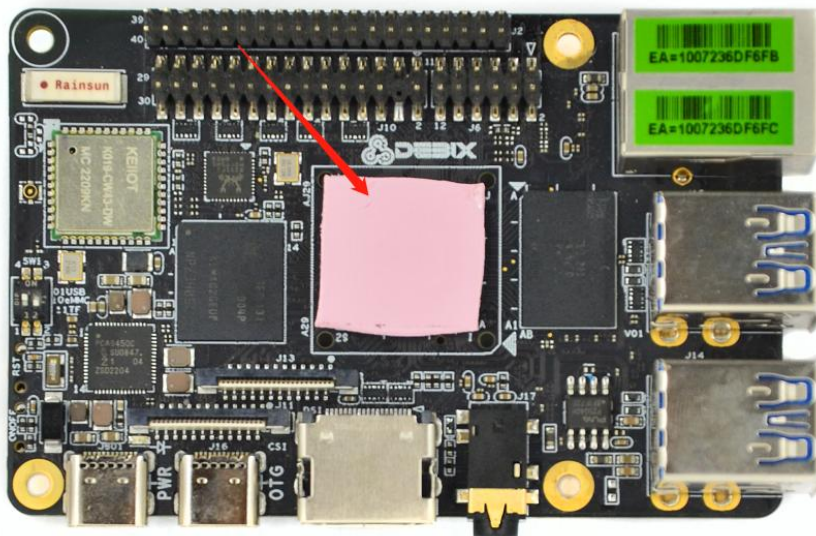

Figure 5

2. Align with the appropriate and corresponding mounting holes, place the single board computer into the enclosure, then fix in place with four PM2.5X6 screws, as shown in the figure below:
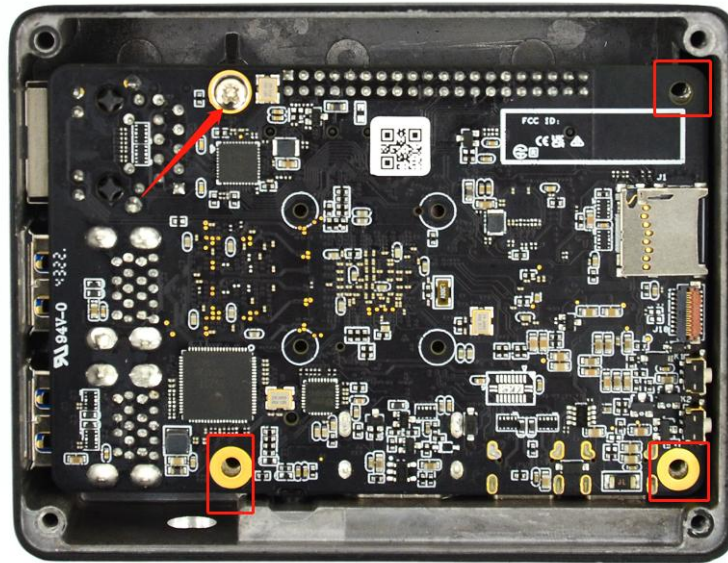
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Figure 6

3. Put the PC blank into the right side of the enclosure according to the corresponding hole position.

4. Install the back cover of the enclosure and fix it with 4 KM2.5X6 locking screws, as shown in the figure below:

Figure 7

Figure 8

2.2. Disassembly

Before disassembling, remove all DEBIX peripheral cables and then remove the screws.

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