How to Install an Image System on an SSD (e.g. Ubuntu)

Note: Installing a new operating system will overwrite and delete all existing data on the target drive. If you need to preserve existing data, it is strongly recommended to back it up beforehand to avoid the risk of data loss.

Required Tools and Files

- **Solid State Drive (SSD) (M.2 2280 specification)**
- **An M.2 NVMe/SATA SSD external enclosure (USB adapter)**
- **An PC/Laptop for flashing the SSD**
- **Flashing software (e.g., balenaEtcher)**
- **Image file**

Method 1: Directly dd the Image to the SSD (Performed on the AI PC)

1. Download the AI PC's Ubuntu OS image file and extract it to your home directory.

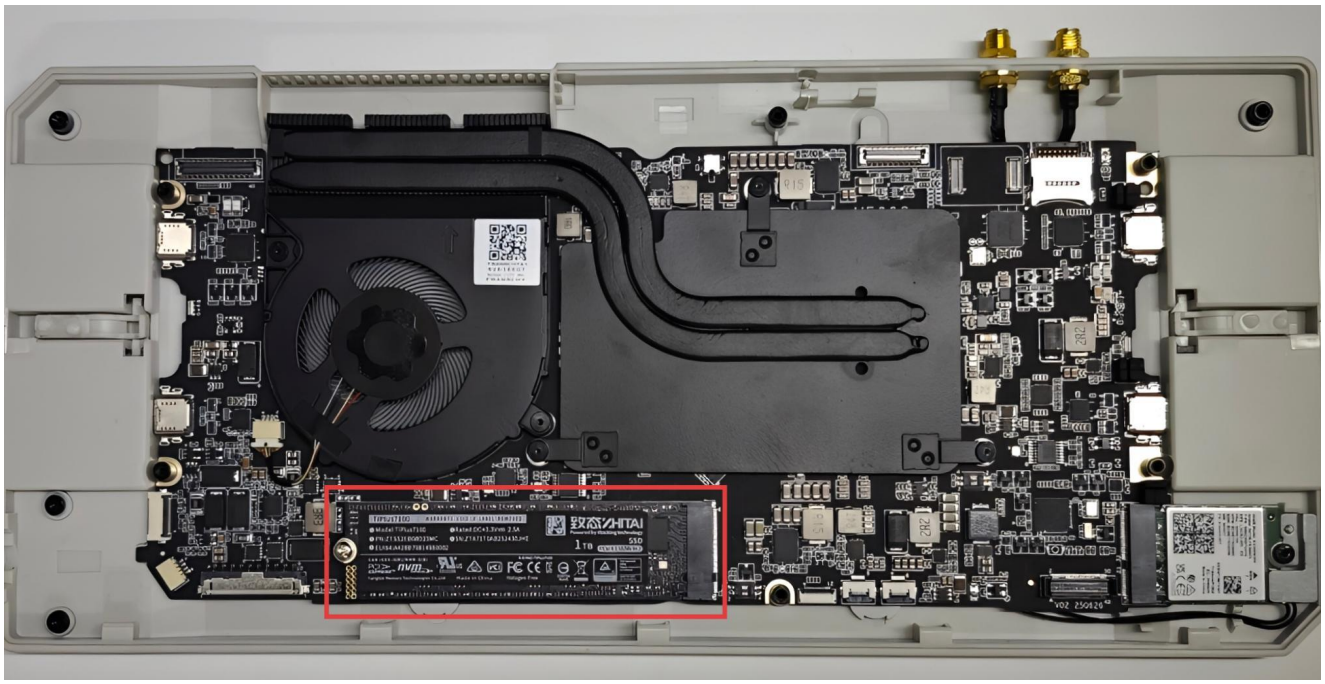
```
unzip 15019-ubuntu-24.04-desktop-grub-sdcard-AI.zip
```

2. Open a terminal. Run the appropriate dd command. Wait for the flashing process to complete. Power off the AI PC and restart it.

```
sudo dd if=sdcard.img of=/dev/nvme0n1 bs=4M status=progress
```

Method 2: Use Flashing Software on a Separate PC/Laptop

1、Disconnect the SSD: Physically remove the SSD from the DC-ROMA RISC-V AI PC mainboard. (Refer to chassis disassembly tutorials if needed).

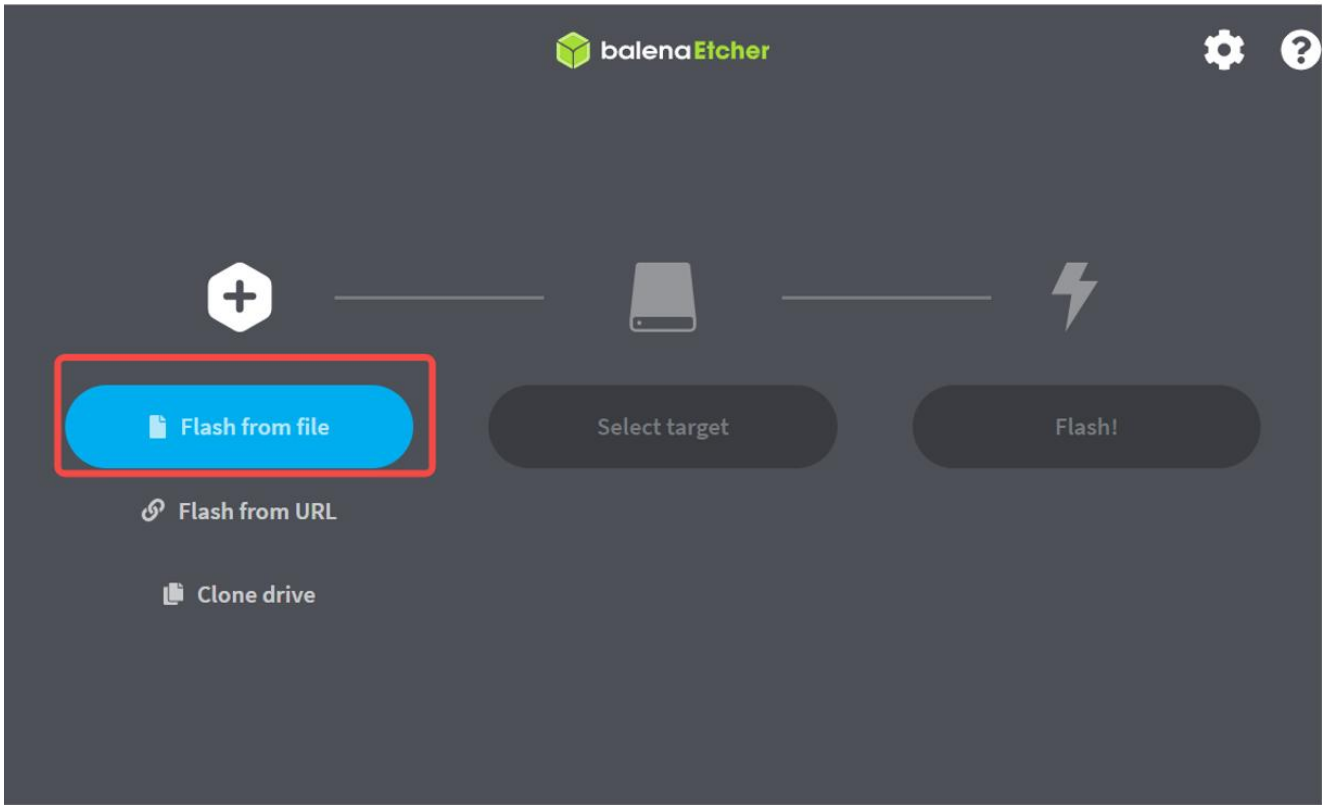


2、Download the Image: Download the AI PC's Ubuntu OS image file.

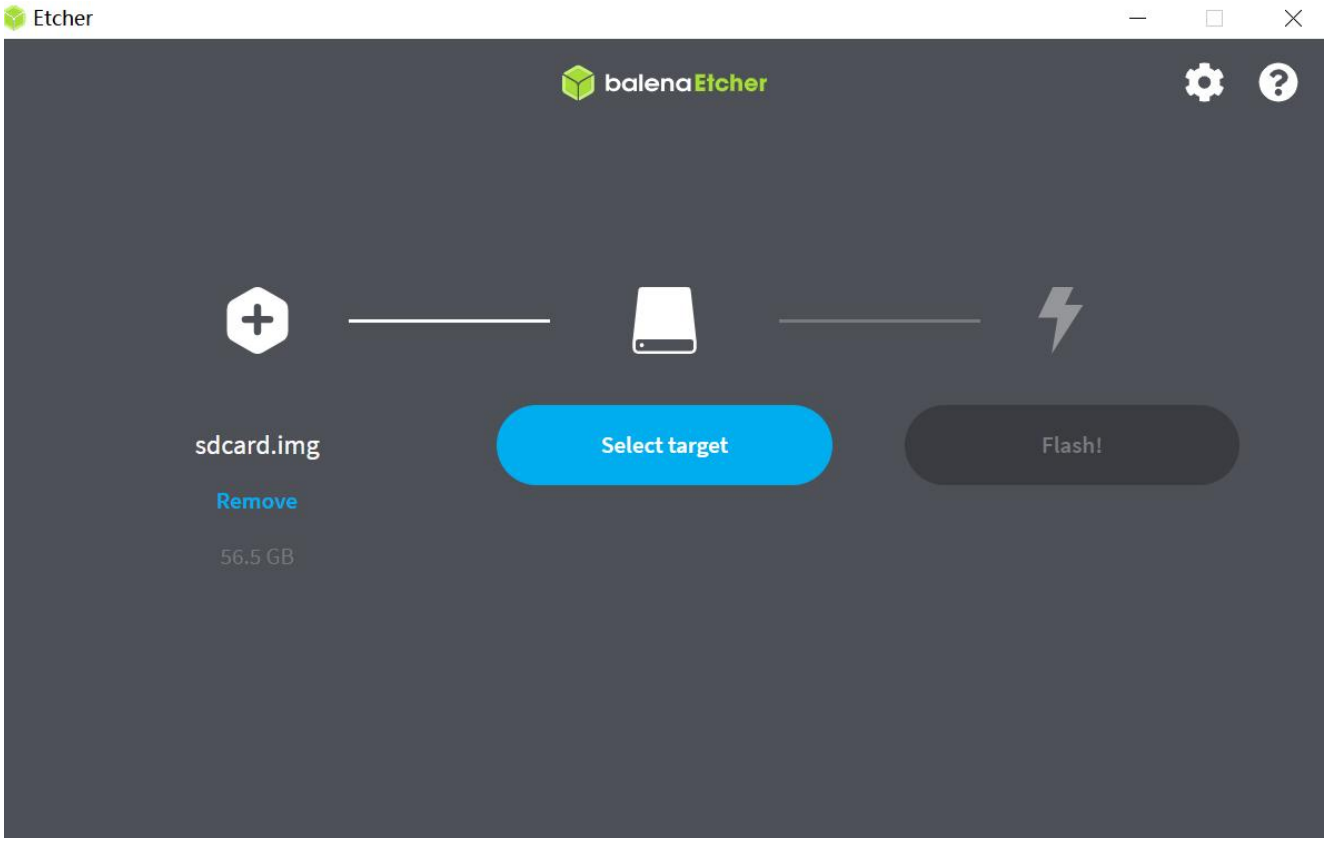
3、Download & Install Flashing Tool: Visit etcher.balena.io, download, and install balenaEtcher (compatible with Windows, Linux, or macOS).

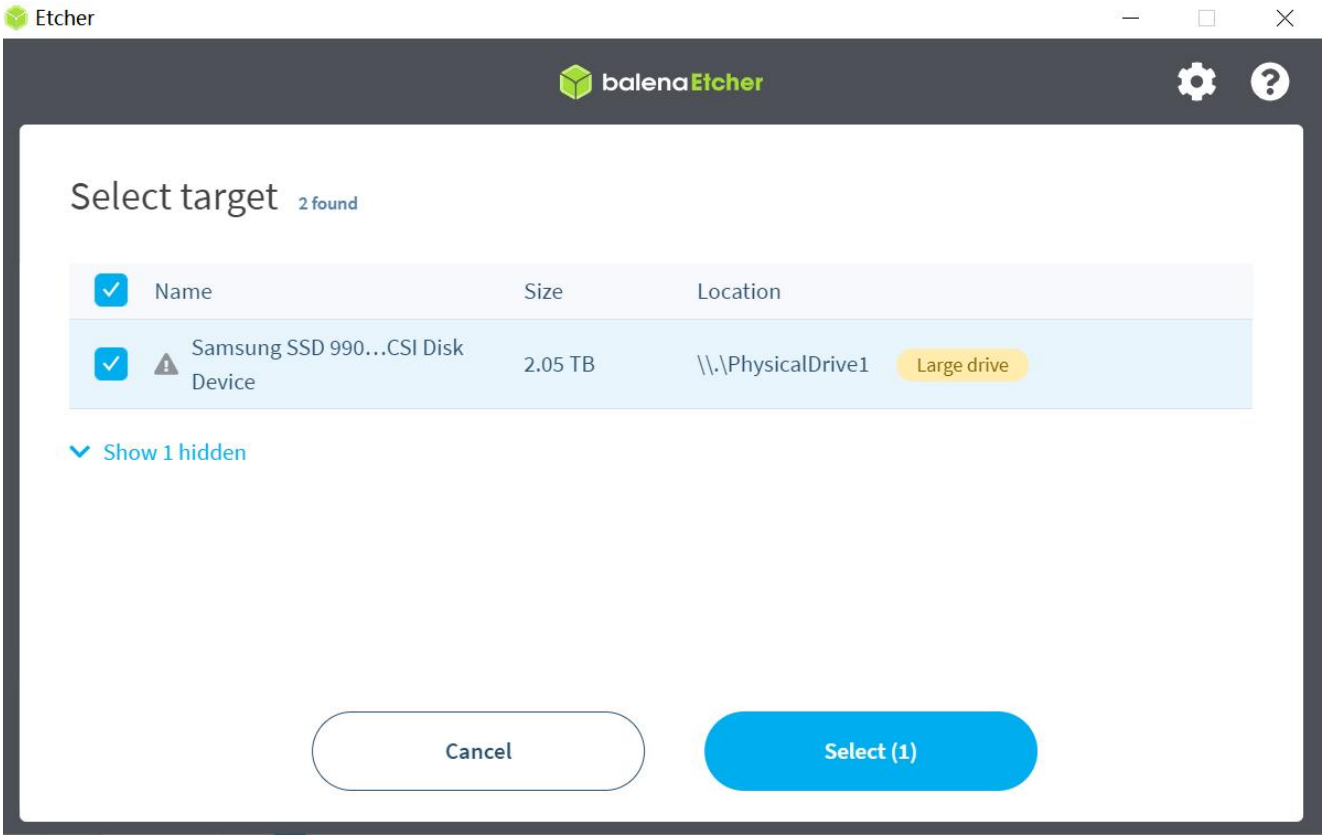
4、Prepare the SSD: Insert the SSD into the M.2 external SSD enclosure. Connect the enclosure to your separate PC/laptop via USB.

5、Launch balenaEtcher: Open the installed balenaEtcher application.Click "Flash from file" and navigate to select the downloaded Ubuntu OS image file.

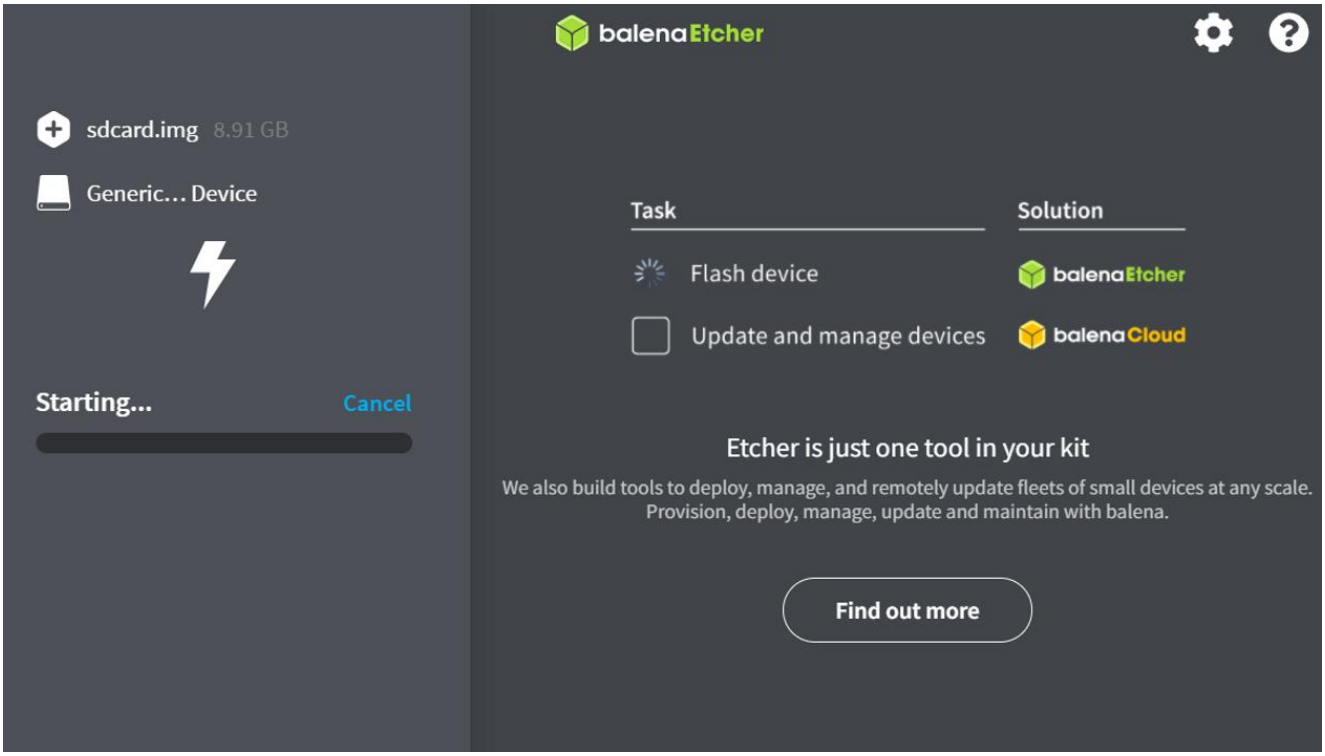


6、Select Target Drive: Click "Select target". Crucially, carefully choose the drive representing your external SSD enclosure. Selecting the wrong drive will result in data loss on that drive.

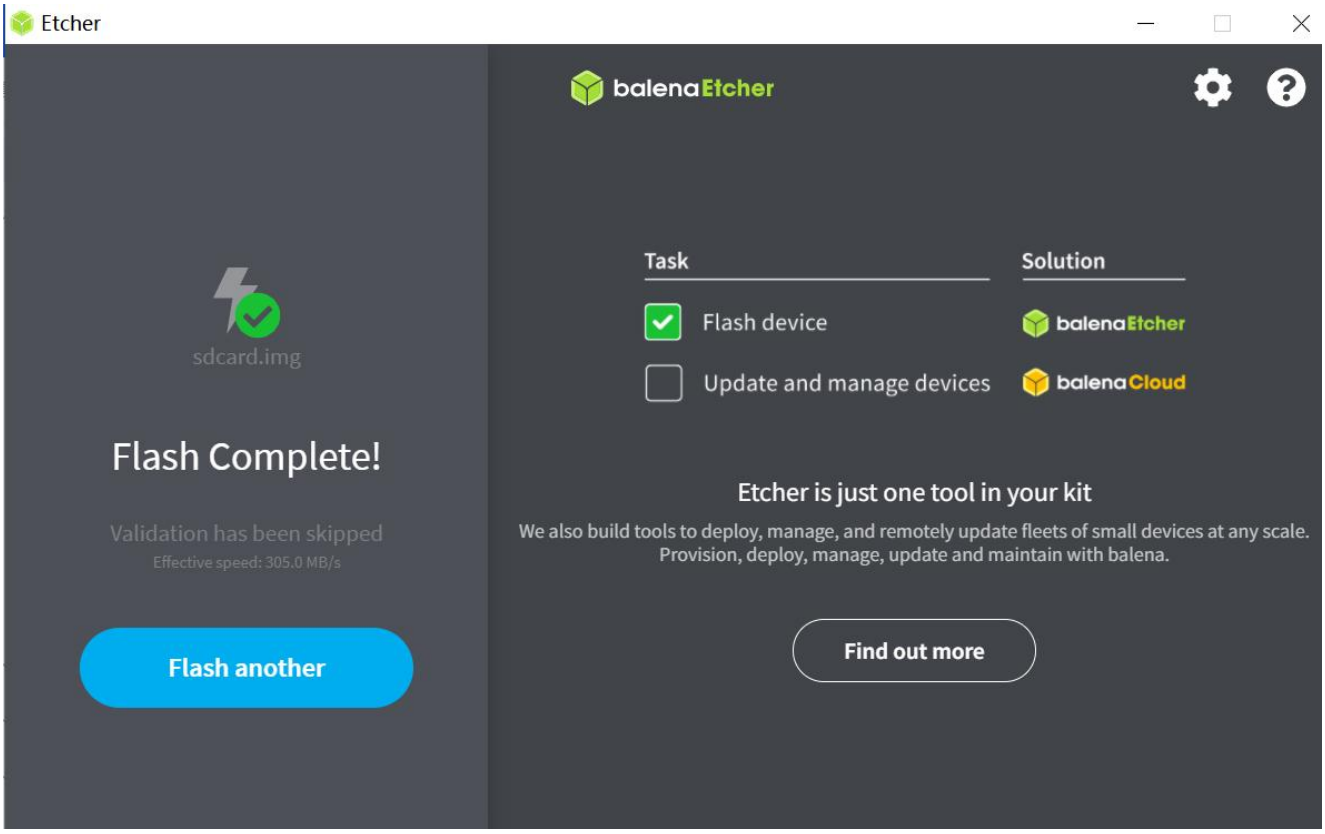




7、Start Flashing: After selecting the image and the target, click "Flash!" or the equivalent button to start the burning process.



8、Wait for Completion: Let the flashing process finish completely. The application will indicate when it's done.



9、Finalize Installation: Safely eject/disconnect the external enclosure from your PC/laptop.

10、Reinstall SSD & Boot: Physically reinstall the flashed SSD into the DC-ROMA RISC-V AI PC motherboard. Power on the AI PC to boot into the newly installed Ubuntu system.