General Installer User's Guide for NAND

Rev 0.1 20161003

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1. Overview

The EDM installer can be operated in two modes. One is automatic mode, which installs a pre-programmed image into the NAND.

2. Support Hardware

These are the systems covered in this guide:

2.1 Supported hardware

These are the systems covered in this guide:

System-on-Modules:

- PICO-IMX6UL-NAND

Carrier Boards:

- PICO-HOBBIT
- PICO-NYMPH

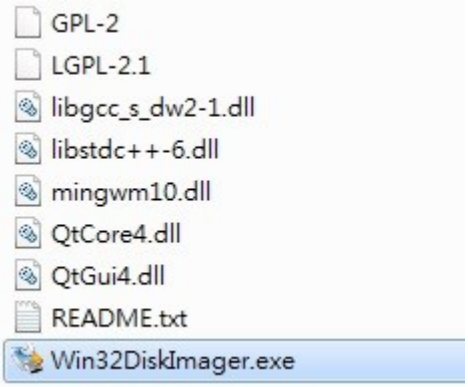
3. Download Installer image

Please visit Technexion download page:
ftp://ftp.technexion.net/development_resources/development_tools/installer/

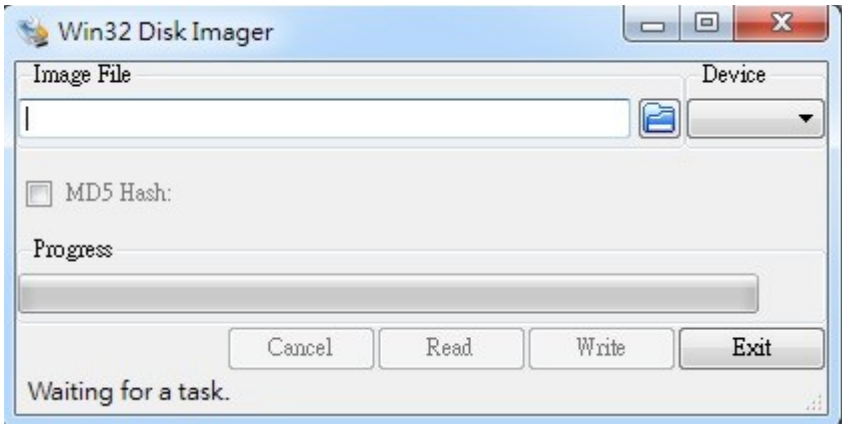
4. Flash installer image into SD

If your PC runs Windows OS:

Please unzip the win32diskimager.zip:



Execute **Win32DiskImager.exe**.



Prepare a microSD card. Insert this microSD card into the card reader of PC.

Choose microSD you insert as “Device”.
Select the “pico-imx6ul-nand-installer_TTL_LCD-800x480_xxx.img” as “Image File”.
Then, press “Write”. **Win32DiskImager** will flash yocto installer image into microSD card.

If your PC runs Ubuntu OS:

Prepare a microSD card. Insert this microSD card into the card reader of PC.

Use 'dd' command to flash yocto installer image into microSD card.

```
$ sudo dd if= pico-imx6ul-nand-installer_TTL_LCD-800x480_xxx.img
of=/dev/sd<partition> bs=1M && sync
```

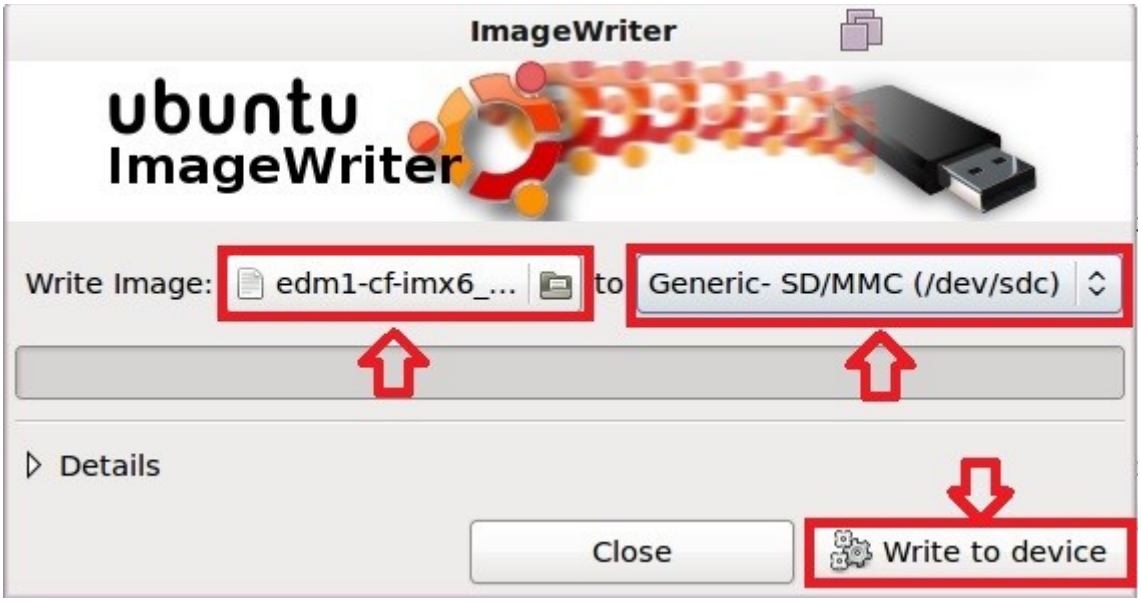
Or

Use “imageWriter” tool.
https://apps.ubuntu.com/cat/applications/precise/usb-imagewriter/
Install “imageWriter”:

```
sudo apt-get install usb-imagewriter
```

Execute “imageWriter”:

```
sudo imagewriter
```



Choose microSD you insert as “Device”.

Select the “pico-imx6ul-nand-installer_TTL_LCD-800x480_xxx.img” as “Write Image”.

Then, press “Write to device”. **imagewriter** will flash Yocto installer image into microSD card.

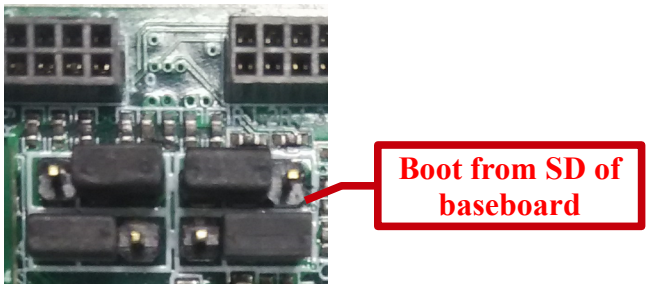
5. Run installer on target board

5.1 Set up boot mode

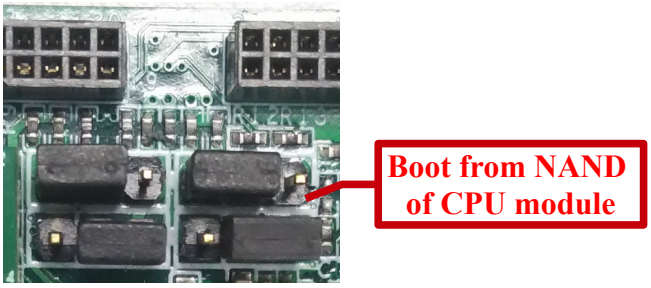
Switch the boot mode to boot from SD card of baseboard to run installer image.
The installer image will install OS image into NAND of CPU module.

5.1.1 PICO-IMX6UL-NAND-HOBBIT

Install jumpers as below, and board will boot from SD card of baseboard:

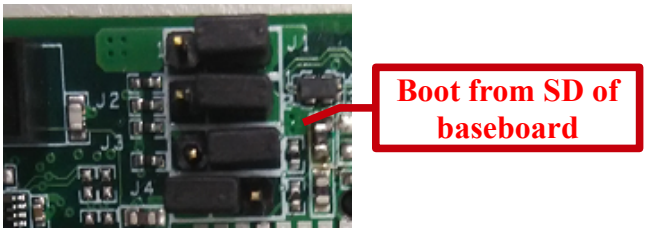


Install jumpers as below, and board will boot from NAND of CPU module:

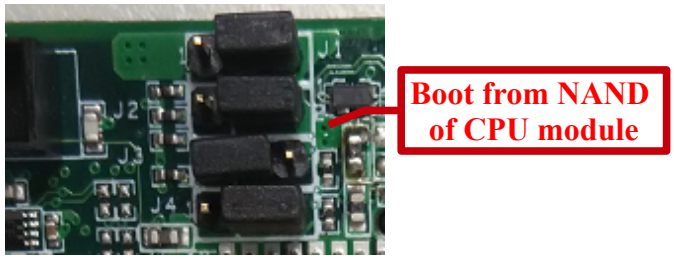


5.1.2 PICO-IMX6UL-NAND-NYMPH

Install jumpers as below, and board will boot from SD card of baseboard:



Install jumpers as below, and board will boot from NAND of CPU module:



5.3 Automatic mode

This section describes the technicalities of preparing an installer SD card. The SD card created will install an image for every boot, without any user interaction.

5.3.1 Installer SD card overview

The EDM installer SD card has two partitions. The very first one, is a FAT partition containing boot files, and more importantly the image to be installed. The second partition is the installer it self, and users should not have to touch the second partition.

The quickest way to make a custom installer (each step is explained in more detail further down this document) is:

1. Prepare files to be installed, including u-boot.imx, zImage, imx6ul-pico-nand-xxx.dtb, and ubi.img.

3. Place all these four files in images/ on the FAT partition.

This way, the installer will install them into NAND.

This will take some time, depending on the size of image and speed of your computer.