SRG/PICO-IMX8PL Hailo-8
User Manual

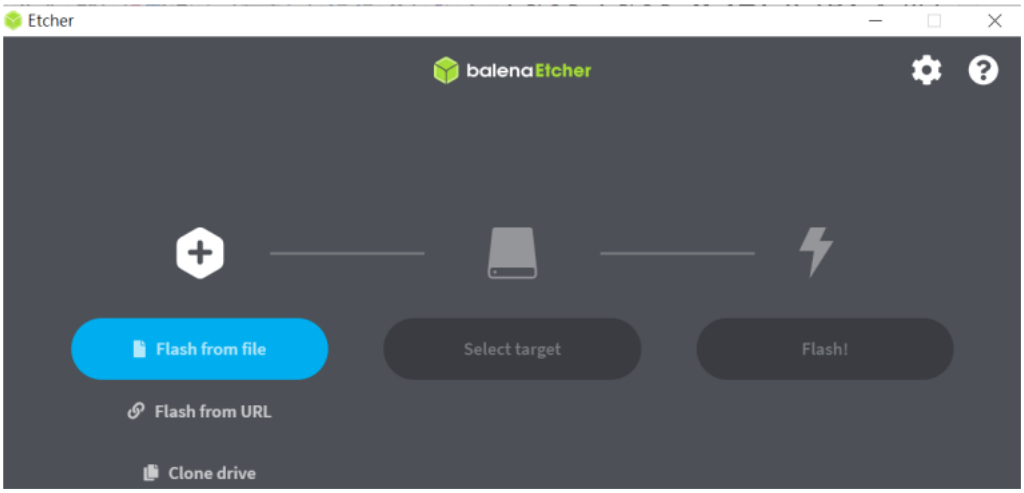
OS Installation

Flash SD Card

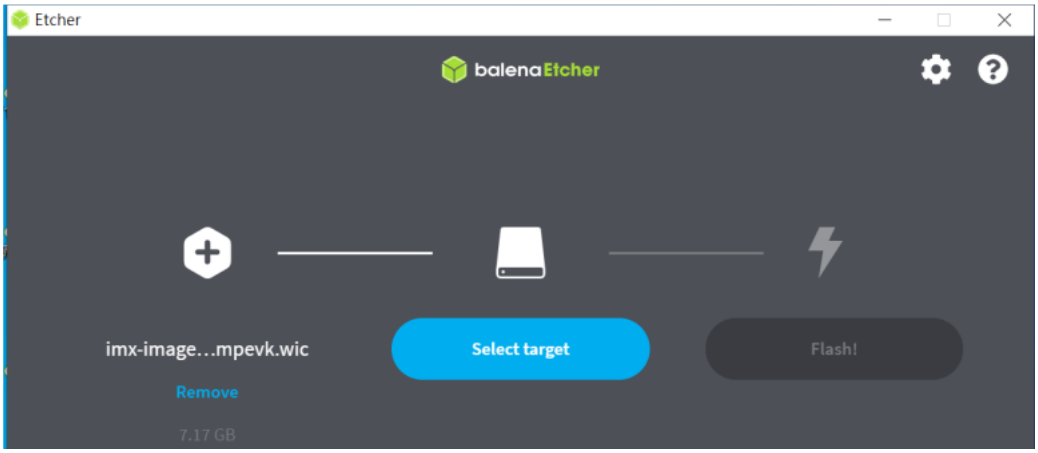
1. Please download the OS image file
   [Hailo M2 2230 for PICO-IMX8PL-A10-0002]
2. Please download balenaEtcher tool https://www.balena.io/etcher/

ASSET	OS	ARCH	
ETCHER FOR WINDOWS (X86|X64) (INSTALLER)	WINDOWS	X86|X64	Download
ETCHER FOR WINDOWS (X86|X64) (PORTABLE)	WINDOWS	X86|X64	Download

3. Insert SD card to computer.
4. Flash from file: Select the image you want to flash



5. Select target: Target is SD card



6. Press the Flash button. It will flash image to SD card.

Manual

https://data-us.aaeon.com/DOWNLOAD/MANUAL/SRG-IMX8PL%20Manual%201st%20Ed.pdf

Check Hailo-8 Module

root@IMX8PL:~# lspci

```
root@IMX8PL:~# lspci
00:00.0 PCI bridge: Synopsys, Inc. DWC_usb3 / PCIe bridge (rev 01)
01:00.0 Co-processor: Hailo Technologies Ltd. Hailo-8 AI Processor (rev 01)
root@IMX8PL:~#
```

Check hailortcli

root@IMX8PL:~# hailortcli fw-control identify

```
root@IMX8PL:~# hailortcli fw-control identify
Executing on device: 0000:01:00.0
Identifying board
Control Protocol Version: 2
Firmware Version: 4.18.0 (release,app,extended context switch buffer)
Logger Version: 0
Board Name: Hailo-8
Device Architecture: HAILO8
Serial Number: HLLWME0214600091
Part Number: HM218B1C2KA
Product Name: HAILO-8 AI ACCELERATOR M.2 A+E KEY MODULE
```

Benchmarking Tool

root@IMX8PL:~# hailortcli benchmark /root/hailo/tappas/apps/h8/gstreamer/imx8/detection/resources/yolov5m_wo_spp_60p.hef

```
root@IMX8PL:~# hailortcli benchmark /root/hailo/tappas/apps/h8/gstreamer/imx8/detection/resources/yolov5m_wo_sp
p_60p.hef
Starting Measurements...
Measuring FPS in hw_only mode
Network yolov5m_wo_spp_60p/yolov5m_wo_spp_60p: 100% | 3181 | FPS: 211.96 | ETA: 00:00:00
Measuring FPS and Power in streaming mode
[HailoRT] [warning] Using the overcurrent protection dvm for power measurement will disable the overcurrent pro
tection.
If only taking one measurement, the protection will resume automatically.
If doing continuous measurement, to enable overcurrent protection again you have to stop the power measurement
on this dvm.
Network yolov5m_wo_spp_60p/yolov5m_wo_spp_60p: 100% | 3182 | FPS: 212.02 | ETA: 00:00:00
Measuring HW Latency
Network yolov5m_wo_spp_60p/yolov5m_wo_spp_60p: 100% | 759 | HW Latency: 12.35 ms | ETA: 00:00:00

=======
Summary
=======
FPS     (hw_only)                 = 211.969
        (streaming)               = 212.024
Latency (hw)                      = 12.3493 ms
Device 0000:01:00.0:
  Power in streaming mode (average) = 5.29297 W
                          (max)     = 5.3327 W
```

Hailo TAPPAS Demo

Objection Detection

Please login GUI desktop on HDMI & launch the “Terminal” app.

aaeon@IMX8PL:~$ sudo su
[sudo] password for aaeon:

root@IMX8PL:~#/root/hailo/tappas/apps/h8/gstreamer/general/detection/detection.sh --input /dev/video4