

CANONICAL



# Ubuntu for Intel IoT platforms

## 2023-03-30 Release Notes

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**Images:** Ubuntu 22.04

**Kernel:** Intel IOT 5.15

**Release Date:** 2023-03-30

**Version:** 1.1 Updated 2023-04-11

## Purpose of Release

This release of the images is based upon Ubuntu Desktop 22.04, Ubuntu Server 22.04, and UC22. All release assets are provided by Canonical.

## Images

- Ubuntu 22.04 Desktop: [Ubuntu for Intel IoT](#) webpage.
  - Image SHA256SUM:  
91a1fe2dcb2691887afc1b51676ac86897ef7a92186c77dd40e663c1360afb48
- Ubuntu 22.04 Server: [Ubuntu for Intel IoT](#) webpage.
  - Image SHA256SUM:  
cf1aff38e8d4a0595320ef6e76db62bfe0ea991dfbaacf8e205ffc079307b71e
- UC22: [Ubuntu for Intel IoT](#) webpage.
  - Image SHA256SUM:  
7ef2dfdb550a17e9206bc0100f33ea4dab9d5aeea58b29a412466c8e66f7e42d

## Hardware Platforms Tested During CQA

- ADL-N SDP/RVP on Ubuntu 22.04 Desktop and Server
- RPL-S RVP on Ubuntu 22.04 Desktop and Server
- RPL-P RVP on Ubuntu 22.04 Desktop and Server, UC22

### Known Limitations of RPL-P testing:

- Canonical testing was conducted on ADL-P RVP platforms upgraded with RPL-P CPU and PCH silicon.
- Significant ethernet issues were encountered during testing; however, these issues were unable to be reproduced by Intel. In these instances the ethernet interface goes away and there is currently no reliable workaround to bring the ethernet back. The hypothesis is this is due to the hardware upgrade, but this has not been fully confirmed at this stage.
  - [LP#2011537](#) [RPL-P] Ethernet Driver sees 8-30% packet loss
  - [LP#2011537](#) [RPL-P] Ethernet interface missing after running reboot stress test

## Bugs Fixed

### Canonical CQA Verified:

- [LP#1981392](#) [iotg][ADL-P][22.04] Detect Wireless test failed with No Devices Detected
- [LP#2002072](#) [ADL-N] HDMI port #2 stops working after installation of ADL-N kernel packages

## Platform Enablement

### Raptor Lake:

- [LP#1996565](#) [RPL] Graphic enabling
- [LP#1996576](#) [RPL] SPI enabling
- [LP#1996585](#) [RPL] Power management controller driver enabling
- [LP#1996602](#) [RPL] Thunderbolt enabling
- [LP#2002072](#) [RPL] Intel trace hub enabling

### Alder Lake N:

- [LP#1997517](#) [ADL-N] Audio HDA enablement
- [LP#1997518](#) [ADL-N] intel\_idle driver enablement
- [LP#1997520](#) [ADL-N] Graphic enablement
- [LP#1997524](#) [ADL-N] Power management controller driver enabling
- [LP#1997522](#) [ADL-N] pinctrl driver enablement
- [LP#1997526](#) [ADL-N] Enable USB-dw3

## Feature Enablement

### 5G with Fibocom FM350:

- [LP#1981516](#) [Feature Request][ADL][5G] Enable 5G support with Fibocom FM350

### Limitations:

- Feature functionality has only been tested on ADL-P Alder Island only.
- The module does not respond after suspend and resume. Once a suitable fix lands upstream Canonical will integrate it.
- Because firmware for this modem can not be distributed by Canonical, this module cannot be supported and certified.

## Driver Support

- [LP#1982282](#) [EHL][TGL][ADL][ICX] Integrated TSN controller (stmmac/i225) driver support (out-of-tree) for 5.15

## Known Limitations

- [LP#2011689](#) [RPL-P] No audio devices detected and [LP#2000203](#) [RPL-S][22.04LTS] No audio sinks detected
  - Missing RPL PCI IDs and ACPI enumeration table
  - Will be fixed in future kernel SRU.

## Open Bugs

Open bugs can be found [here](#).

## Report Bugs

Report bugs [here](#).

## Intel Board BIOS Settings

Ubuntu Desktop: Default BIOS settings are sufficient in most instances. Some features on Elkhart Lake, like QEP, USB-DWCS, require BIOS settings or they will not work. Note: Enabling USB-DW3 will affect the functionality of the USB-C port.

Ubuntu Server: Default BIOS settings are sufficient.

Some users have reported being unable to enter the BIOS settings (F2) or the Boot Manager (F7) when a USB drive is inserted. This can make it difficult to boot from a USB drive when installing the Canonical images. To get around this, boot the system without any USB drives inserted. Enter the BIOS settings, insert the drive, and then select Boot Manager. The USB drive will show up in the list so users can select to boot from it.