



# Getting started with installing Linux Driver

The following guide was written for Ubuntu. For other distributions, please see [Appendix A – Equivalent commands for other distributions](#).

## Contents

- 1. Revision History ..... 2
- 2. Download your AlazarTech Product Linux Driver and Alazar-Front-Panel ..... 3
- 3. Install your AlazarTech Product Linux Driver and Alazar-Front-Panel ..... 4
- 4. Verify the Installation of your AlazarTech Linux Driver and Alazar-Front-Panel ..... 6
- 5. Optional: Download ats-license to Install ATS-SDK or ATS-GPU for Linux ..... 7
- 6. Optional: Install ats-license-x.x.x\_amd64 to download ATS-SDK or ATS-GPU ..... 9
- 7. Optional: Install Downloaded ATS-SDK or ATS-GPU product ..... 11
- 8. Appendix A – Equivalent commands for other distributions ..... 12

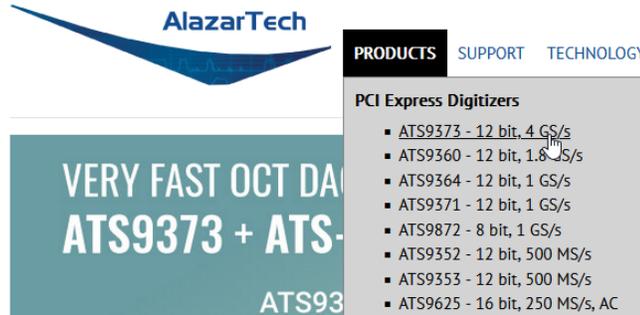
## 1. Revision History

Version Date	Description of Changes
March 2024	This is the first edition of this guide.
September 2024	<p>Removed “under Ubuntu” from document title; equivalent commands for other distributions are now included in <i>Appendix A</i>.</p> <p>Added sections for Downloading License Installer for ATS-SDK or ATS-GPU, Installation of license installer, Installation of downloaded ATS-SDK or ATS-GPU product.</p> <p>Removed Section 2b. Libats is no longer a separate download and is installed during installation of driver versions 7.11.0 or later.</p> <p>Moved Revision History to the beginning of installation guide.</p> <p>Added <i>Appendix A – Equivalent commands for other distributions</i>.</p>

## Getting started with installing Linux Driver

### 2. Download your AlazarTech Product Linux Driver and Alazar-Front-Panel

2.1) Go to AlazarTech’s website and choose your board from the PRODUCTS drop-down menu



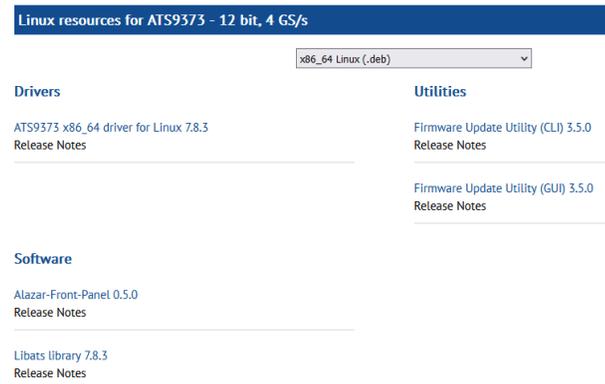
2.2) Scroll down on the product’s page to find the Drivers section:



a. Click on **Linux Resources** and you will be brought to the Linux resource page for your product. From here, select your CPU archetype.



b. After selecting your CPU archetype, click on **ATSyyyy x86\_64 driver for Linux x.x.x** in the Drivers section to download your product’s Linux Driver, where yyyy is your digitizer model and x.x.x is the driver version number.



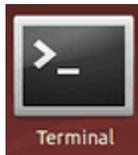
c. Click on **Alazar-Front-Panel x.x.x** to download the oscilloscope GUI for Linux.

## Getting started with installing Linux Driver

### 3. Install your AlazarTech Product Linux Driver and Alazar-Front-Panel

Note: From this point going forward, we assume you have installed Linux O/S and are familiar with Linux operating system.

- 3.1) Open a Terminal Window or click on the Applications icon  in the bottom left corner to open one.



- 3.2) Type the following command in the open terminal at the prompt:

- a. `sudo apt-get install dkms1,2`

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  menu
The following NEW packages will be installed:
  dkms
0 upgraded, 1 newly installed, 0 to remove and 96 not upgraded.
Need to get 41.4 kB of archives.
After this operation, 190 kB of additional disk space will be used.
Get:1 http://ca.archive.ubuntu.com/ubuntu kinetic-updates/main amd64 dkms all 3.0.6-2ubuntu2 [41.4 kB]
Fetched 41.4 kB in 0s (150 kB/s)
Selecting previously unselected package dkms.
(Reading database ... 189030 files and directories currently installed.)
Preparing to unpack ../dkms_3.0.6-2ubuntu2_all.deb ...
Unpacking dkms (3.0.6-2ubuntu2) ...
Setting up dkms (3.0.6-2ubuntu2) ...
Processing triggers for man-db (2.10.2-2) ...
```

- b. `sudo dpkg -i drivers-ats9373-dkms_x.x.x_amd64.deb2`

```
oem@oem-HP-Z4-G4-Workstation:~/Downloads$ sudo dpkg -i drivers-ats9373-dkms_7.8.7_amd64.deb
Selecting previously unselected package drivers-ats9373-dkms.
(Reading database ... 189252 files and directories currently installed.)
Preparing to unpack drivers-ats9373-dkms_7.8.7_amd64.deb ...
Unpacking drivers-ats9373-dkms (7.8.7) ...
Setting up drivers-ats9373-dkms (7.8.7) ...
Init system: systemd
Creating symlink /var/lib/dkms/ats9373/7.8.7/source -> /usr/src/ats9373-7.8.7
Sign command: /usr/bin/kmodsign
Signing key: /var/lib/shim-signed/mok/MOK.priv
Public certificate (MOK): /var/lib/shim-signed/mok/MOK.der

Building module:
Cleaning build area...
make -j8 KERNELRELEASE=5.19.0-31-generic -C /lib/modules/5.19.0-31-generic/build M=/var/lib/dkms/ats9373/7.8.7/build...
Signing module /var/lib/dkms/ats9373/7.8.7/build/ats9373.ko

Running the post_build script:
Cleaning build area...

ats9373.ko:
Running module version sanity check.
- Original module
- No original module exists within this kernel
- Installation
- Installing to /lib/modules/5.19.0-31-generic/updates/dkms/
depmod...
Created symlink /etc/systemd/system/multi-user.target.wants/ats9373.service -> /lib/systemd/system/ats9373.service.
```

## Getting started with installing Linux Driver

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- c. `sudo dpkg -i alazar-front-panel-x.x.x.deb`<sup>1,2</sup>

```
oem@oem-HP-Z4-G4-Workstation:~/Download:$ sudo dpkg -i alazar-front-panel-0.5.0.deb
[sudo] password for oem:
Selecting previously unselected package alazar-front-panel.
(Reading database ... 189325 files and directories currently installed.)
Preparing to unpack alazar-front-panel-0.5.0.deb ...
Unpacking alazar-front-panel (0.5.0) ...
Setting up alazar-front-panel (0.5.0) ...
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu4) ...
```

**Note:**

<sup>1</sup>You may be prompted for a password request; this is a security measure to prevent malware from getting automatically installed on the computer.

<sup>2</sup>Output screen content may differ on other Linux distributions.

## 4. Verify the Installation of your AlazarTech Linux Driver and Alazar-Front-Panel

4.1) Type the following command in the open terminal at the prompt to verify the packages have been installed:

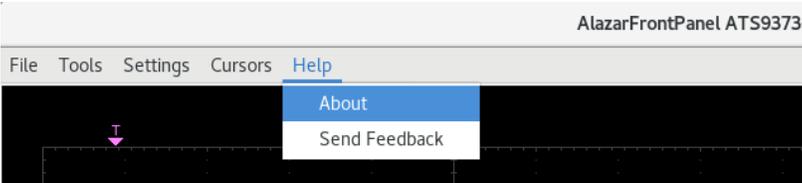
```
grep installed /var/log/dpkg.log
```

```
2023-05-09 15:01:36 status half-installed libats:amd64 7.8.7
2023-05-09 15:01:36 status installed libats:amd64 7.8.7
2023-05-09 15:01:46 startup archives install
2023-05-09 15:01:52 status half-installed drivers-ats9373-dkms:amd64 7.8.7
2023-05-09 15:01:58 status installed drivers-ats9373-dkms:amd64 7.8.7
2023-05-09 15:02:02 startup archives install
2023-05-09 15:02:02 status half-installed alazar-front-panel:amd64 0.5.0
2023-05-09 15:02:02 status installed alazar-front-panel:amd64 0.5.0
2023-05-09 15:02:02 status installed mailcap:all 3.70+nmu1ubuntu1
2023-05-09 15:02:02 status installed gnome-menus:amd64 3.36.0-1ubuntu3
2023-05-09 15:02:02 status installed desktop-file-utils:amd64 0.26-1ubuntu4
```

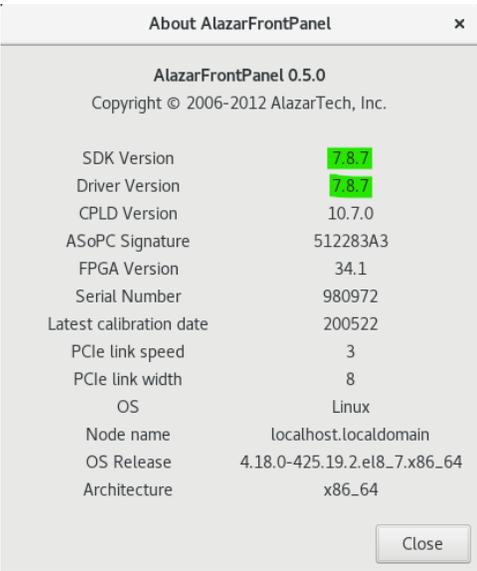
This will output the above list of packages by installation date.

4.2) Navigate to the folder /usr/local/AlazarTech/bin where AlazarFrontPanel is located and run the application.

Click on Help → About



This will display the Board Properties to verify that you have successfully installed the version of the Library and Drivers for your product under Ubuntu



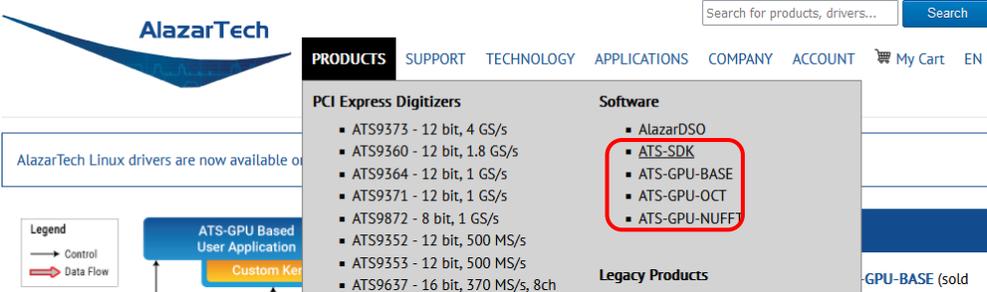
### 5. Optional: Download ats-license to Install ATS-SDK or ATS-GPU for Linux

If you purchased an ATS-SDK and/or ATS-GPU software license, you will need to download the ats-license installer. At the time of order fulfillment, AlazarTech would have sent a Software eDelivery email containing software license key(s) to the technical contact provided.

Product	Purchased Version	Maintenance Expiration Date (YYYY/MM/DD)	Serial Number	Software License Key
ATS-SDK	24.2.0	2025/08/31	SDK [REDACTED]	[REDACTED]
ATS-GPU-NUFFT	24.2.1	2025/08/31	GPU [REDACTED]	[REDACTED]
ATS-GPU-OCT	24.2.1	2025/08/31	GPU [REDACTED]	
ATS-GPU-BASE	24.2.1	2025/08/31	GPU [REDACTED]	

Note: there is a single license key for ATS-GPU that will allow the installation of any purchased ATS-GPU libraries.

5.1) Go to AlazarTech’s website and select ATS-SDK (or ATS-GPU) products from the PRODUCTS drop-down menu.

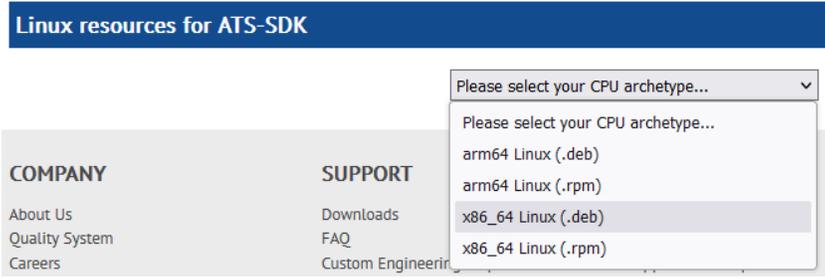


5.2) On the product’s page, scroll down to find the Software section and click on **Linux Resources**.

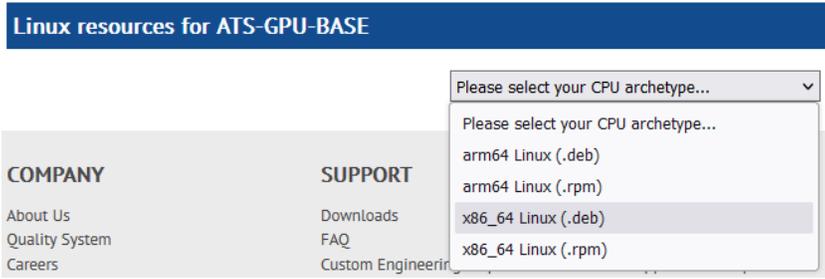
ATS-SDK:	ATS-GPU-BASE:
<p><b>Software</b></p> <p>ATS-SDK Installation Program for Windows Version: 24.1.0 Release Notes</p> <p><b>Linux Resources</b> Linux ReadMe</p>	<p><b>Software</b></p> <p>ATS-GPU-BASE Installation Program for Windows Version: 24.1.0 Release Notes</p> <p><b>Linux Resources</b> Linux ReadMe</p>

## Getting started with installing Linux Driver

5.3) This will bring you to the Linux resources page for your product. From here, select your CPU archetype.



The screenshot shows the 'Linux resources for ATS-SDK' page. On the left, there are navigation links under 'COMPANY' (About Us, Quality System, Careers) and 'SUPPORT' (Downloads, FAQ, Custom Engineering). A dropdown menu is open, displaying the following options: 'Please select your CPU archetype...', 'arm64 Linux (.deb)', 'arm64 Linux (.rpm)', 'x86\_64 Linux (.deb)' (highlighted), and 'x86\_64 Linux (.rpm)'.



The screenshot shows the 'Linux resources for ATS-GPU-BASE' page. It has the same layout as the previous screenshot. The dropdown menu is open, showing the same options as above, with 'x86\_64 Linux (.deb)' highlighted.

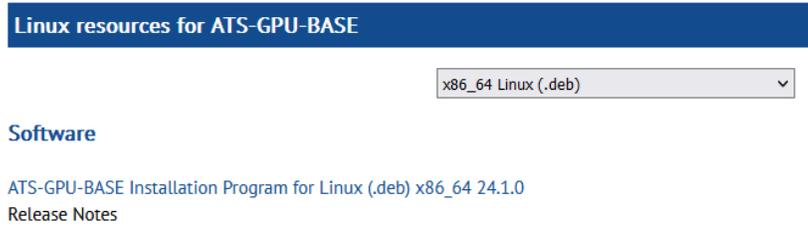
5.4) After selecting your CPU archetype, click on one of the following to download and save the **ats-license-x.x.x\_amd64.deb** installation program for Linux.

From *Linux resources for ATS-SDK*: **ATS-SDK Installation Program for Linux (.deb) xx.x.x**



The screenshot shows the 'Linux resources for ATS-SDK' page. The dropdown menu is now closed and shows 'x86\_64 Linux (.deb)'. Below the dropdown, there is a 'Software' section with a link to 'ATS-SDK Installation Program for Linux (.deb) 24.1.0' and a link to 'Release Notes'.

From *Linux resources for ATS-GPU*:  
**ATS-GPU-xxx Installation Program for Linux (.deb) x86\_64 xx.x.x**



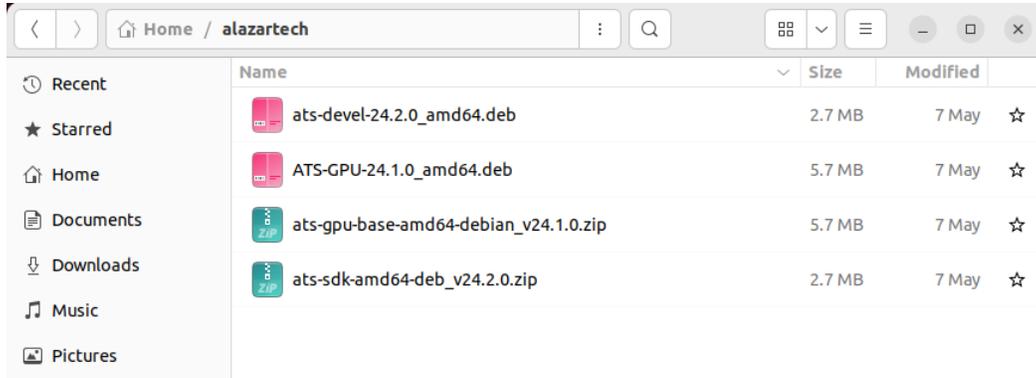
The screenshot shows the 'Linux resources for ATS-GPU-BASE' page. The dropdown menu is closed and shows 'x86\_64 Linux (.deb)'. Below the dropdown, there is a 'Software' section with a link to 'ATS-GPU-BASE Installation Program for Linux (.deb) x86\_64 24.1.0' and a link to 'Release Notes'.

Note: If installing both ATS-SDK and ATS-GPU, you only need to download the ats-license installer once.



## Getting started with installing Linux Driver

The respective ATS-SDK or ATS-GPU products will be downloaded to **/Home/alazartech** as shown in the following screenshot:



### **Note:**

<sup>1</sup>You may be prompted for a password request; this is a security measure to prevent malware from getting automatically installed on the computer.

<sup>2</sup>Output screen content may differ on other Linux distributions

## 7. Optional: Install Downloaded ATS-SDK or ATS-GPU product

7.1) Open a terminal window in Home/alazartech to begin installation of either:

- a) ATS-SDK (ats-devel-xx.x.x\_amd64.deb)
- b) ATS-GPU-xx.x.x\_amd64.deb (or GPU-OCT-xx.x.x\_amd64.deb or GPU-NUFFT-xx.x.x\_amd64.deb)

7.2) Type the following command in the open terminal at the prompt:

- a) `sudo dpkg -i ats-devel-xx.x.x_amd64.deb1,2`

```
alazar@alazar-HP-Z4-G4-Workstation:~/alazartech$ sudo dpkg -i ats-devel-24.2.0_amd64.deb
[sudo] password for alazar:
Selecting previously unselected package ats-devel.
(Reading database ... 169295 files and directories currently installed.)
Preparing to unpack ats-devel-24.2.0_amd64.deb ...
Unpacking ats-devel (24.2.0) ...
Setting up ats-devel (24.2.0) ...
```

Once installed, the ATS-SDK (ats-devel) directory can be found in `/usr/local/Alazar/samples`

- b) `sudo dpkg -i ATS-GPU-xx.x.x_amd64.deb1,2`

```
alazar@alazar-HP-Z4-G4-Workstation:~/alazartech$ sudo dpkg -i ATS-GPU-24.1.0_amd64.deb
[sudo] password for alazar:
Selecting previously unselected package ats-gpu.
(Reading database ... 198107 files and directories currently installed.)
Preparing to unpack ATS-GPU-24.1.0_amd64.deb ...
Unpacking ats-gpu (24.1.0) ...
Setting up ats-gpu (24.1.0) ...
alazar@alazar-HP-Z4-G4-Workstation:~/alazartech$
```

Once installed, the ATS-GPU directory can be found in `/usr/local/Alazar/ATS-GPU/xx.x.x`, where `xx.x.x` is the Version number.

### **Note:**

<sup>1</sup>You may be prompted for a password request; this is a security measure to prevent malware from getting automatically installed on the computer.

<sup>2</sup>Output screen content may differ on other Linux distributions.

## 8. Appendix A – Equivalent commands for other distributions

<b>Task</b>	<b>Ubuntu</b>	<b>RHEL/Fedora</b>
Install a package from a repository	<a href="#">sudo apt-get install dkms</a>	sudo yum install dkms
Install a package file	sudo dpkg -i package_name.deb	sudo rpm -i package_name.rpm
Display recently installed files	<a href="#">grep installed /var/log/dpkg.log</a>	sudo rpm -qa --last   tac