**Flashing EDK II Firmware Using DediProg Engineering**

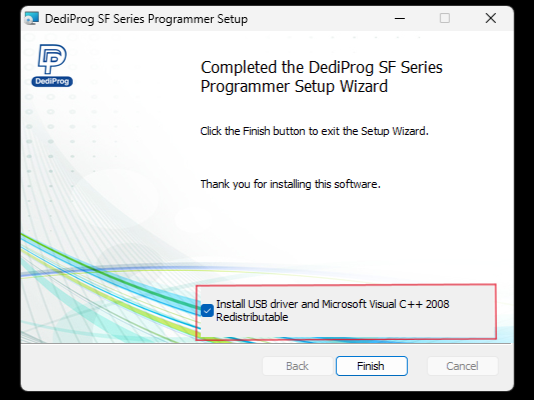
# **1. Windows Host**

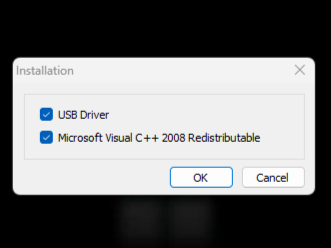
## **1.1 Prerequisites**

* Ampere Altra Developer Platform
* Windows PC with a USB port
* Dediprog SF100 Programmer Tool with cable
* DB40 A2 Module with cable
* USB to Micro USB cable

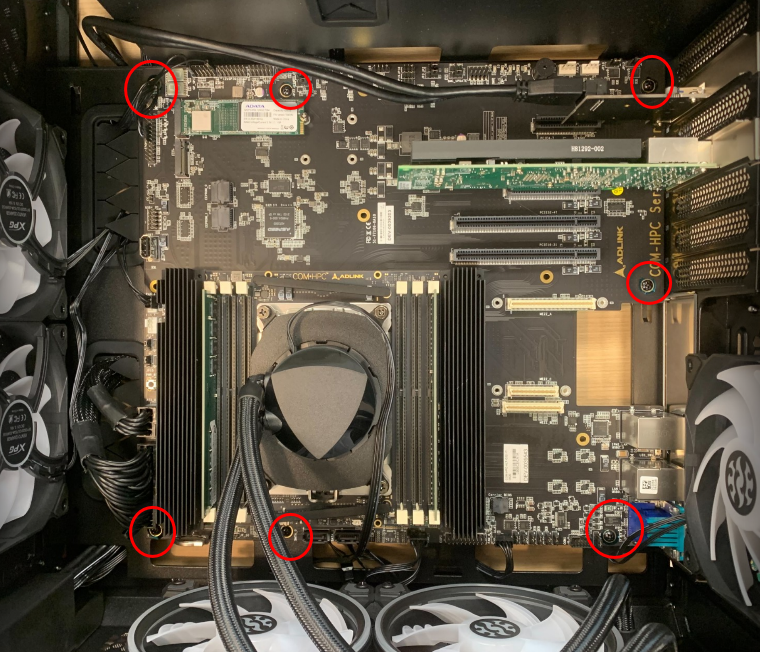
## **1.2 Flashing Process**

* Download and install the latest software of DediProg Engineering SF100 SPI NOR Flash tool from [Dediprog\_Download Center](https://www.dediprog.com/download?productCategory=SPI+NOR+Flash+Programmer+and+Kit&productName=SF100+SPI+NOR+Flash+Programmer&fileType=10" \t "_blank) on the host PC.
* Make sure to install the USB Driver and Microsoft Visual C++ during the installation process.

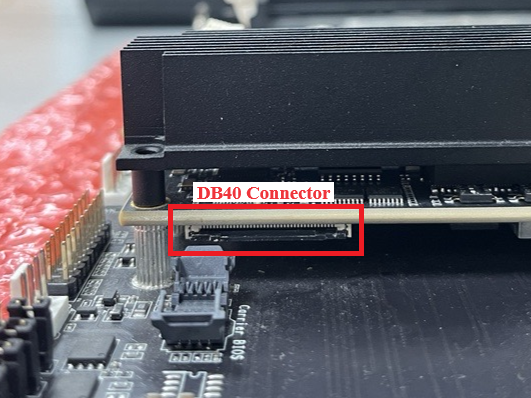




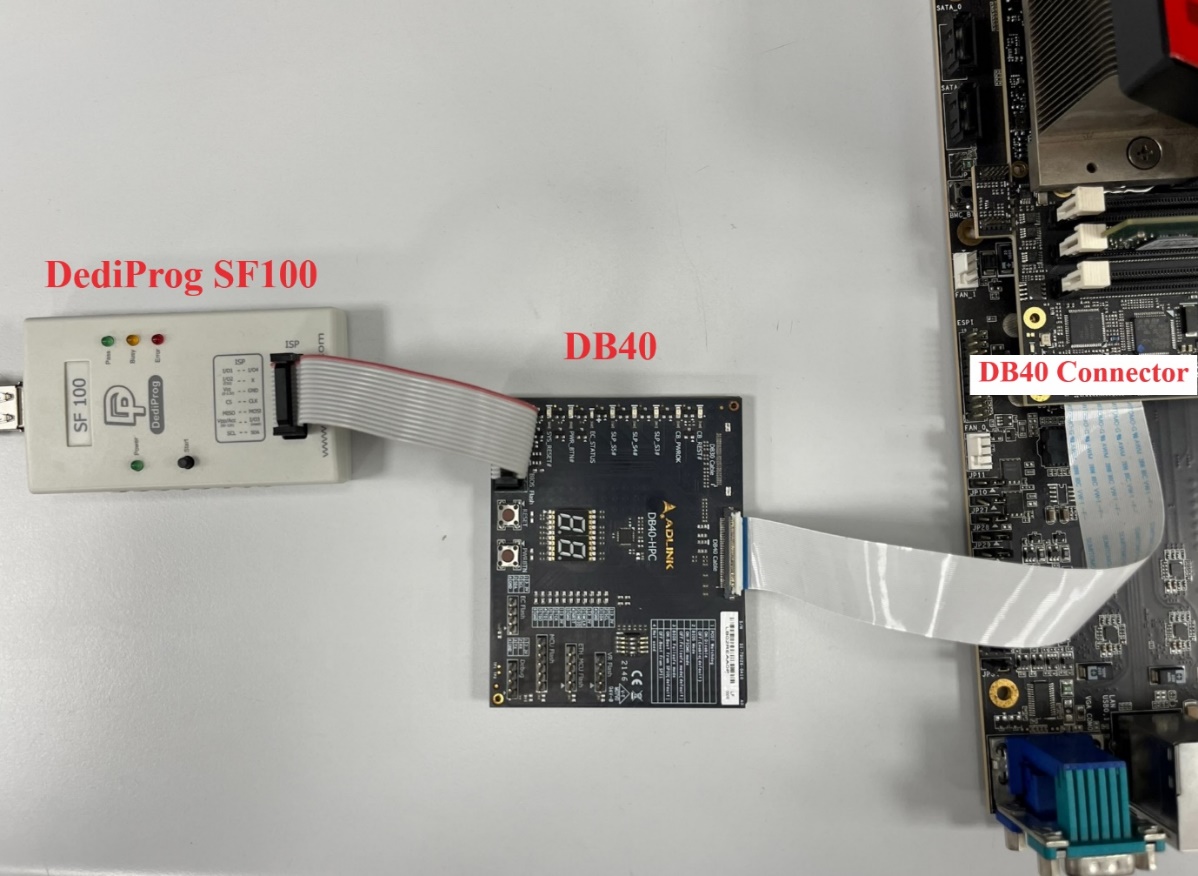
* Turn off **the** target system.
* Since the DB40 connector is beneath the module, unscrew and remove the carrier board with the module attached.  
  Skip this step if you can access the DB40 connector directly



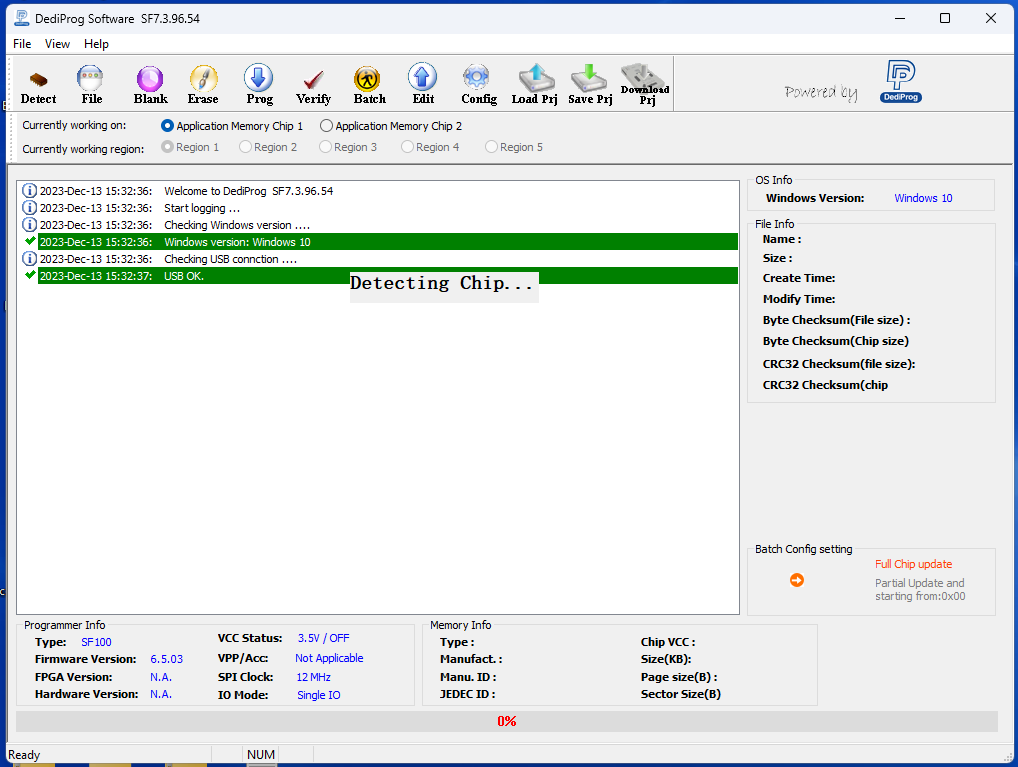
* Locate the DB40 connector underneath the module.



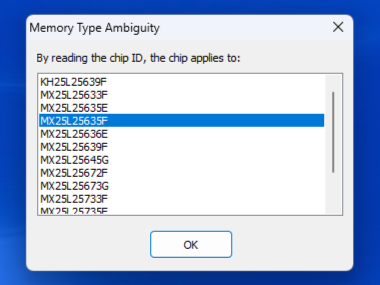
* Connect the DediProg Engineering SF100 tool to the DB40 module and then link the entire setup to the DB40 connector on the target system, as illustrated below.
* Finally, connect the DediProg Engineering tool to the host PC via USB.



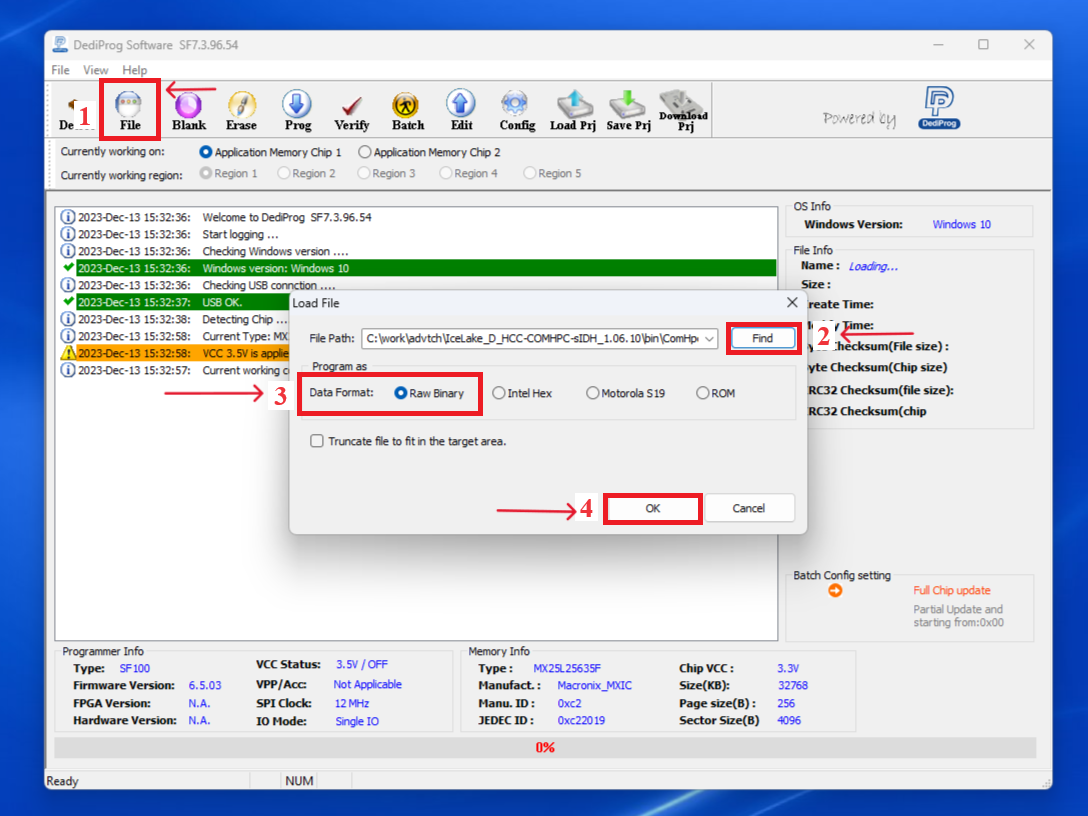
* Run DediProg Engineering SF100 software in administrator mode on the host machine.



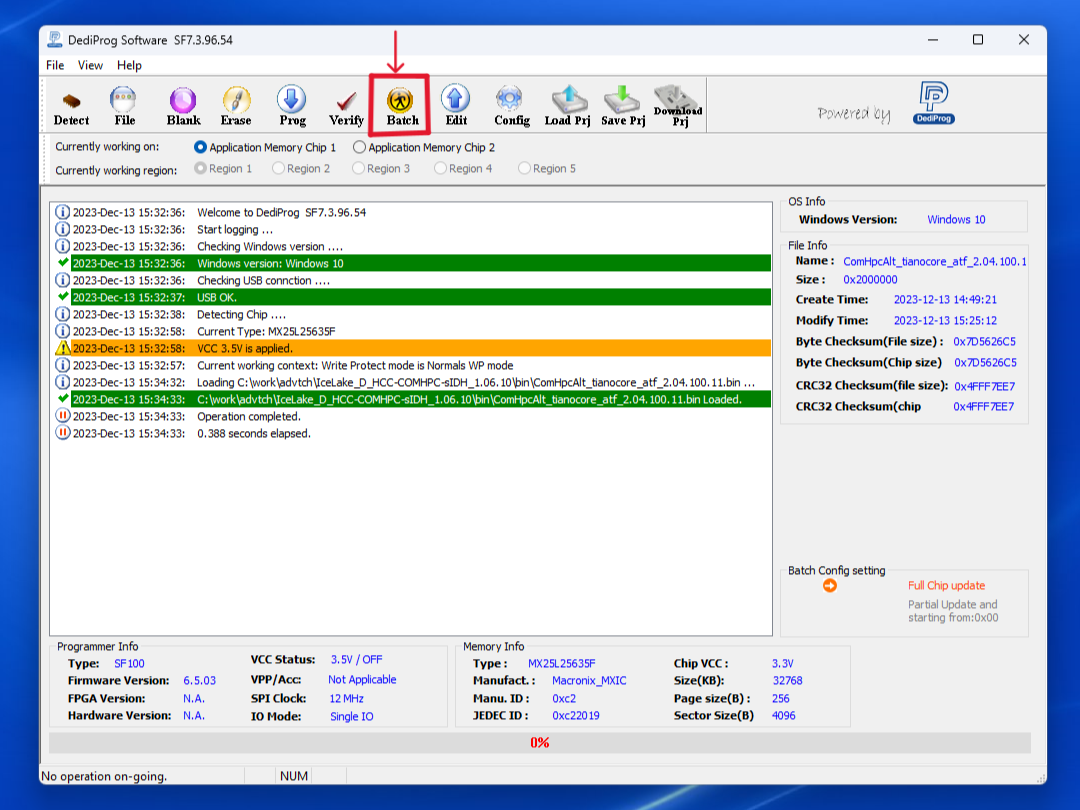
* Once the chip is detected, select "**MX25L25635F"** from the listed Chip ID's.



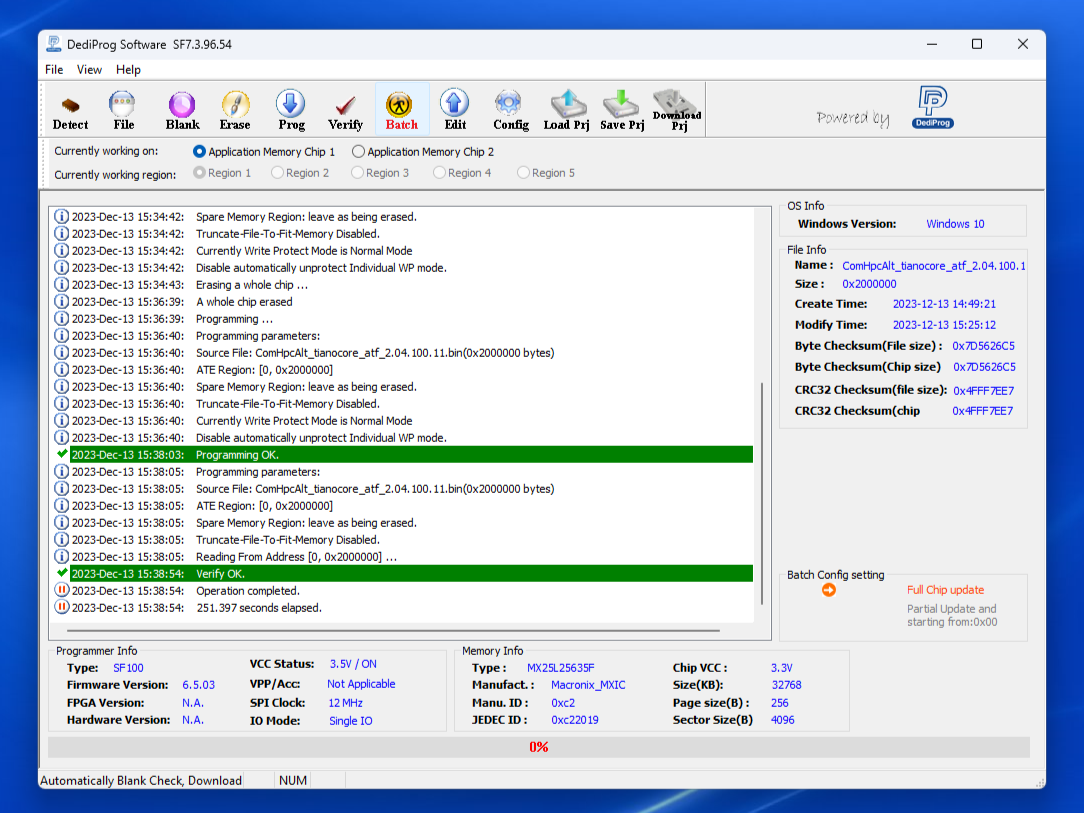
* Click on the File menu and load the “ComHpcAlt\_tianocore\_atf\_<ver>.bin” file from the ‘v2.xx.100.xx\DediprogFlash’ directory. Choose “Raw Binary” under “Program as” section.



* Select the “Batch” icon to start flashing.



* Upon successful completion, “Verify OK” message followed by “Operation Completed" will be displayed.



* Close the DediProg Engineering SF100 tool and remove the DB40 connector from the target system.
* Power on the target system.

 The EDKII firmware is now successfully flashed on the target system.

# **2. Linux Host**

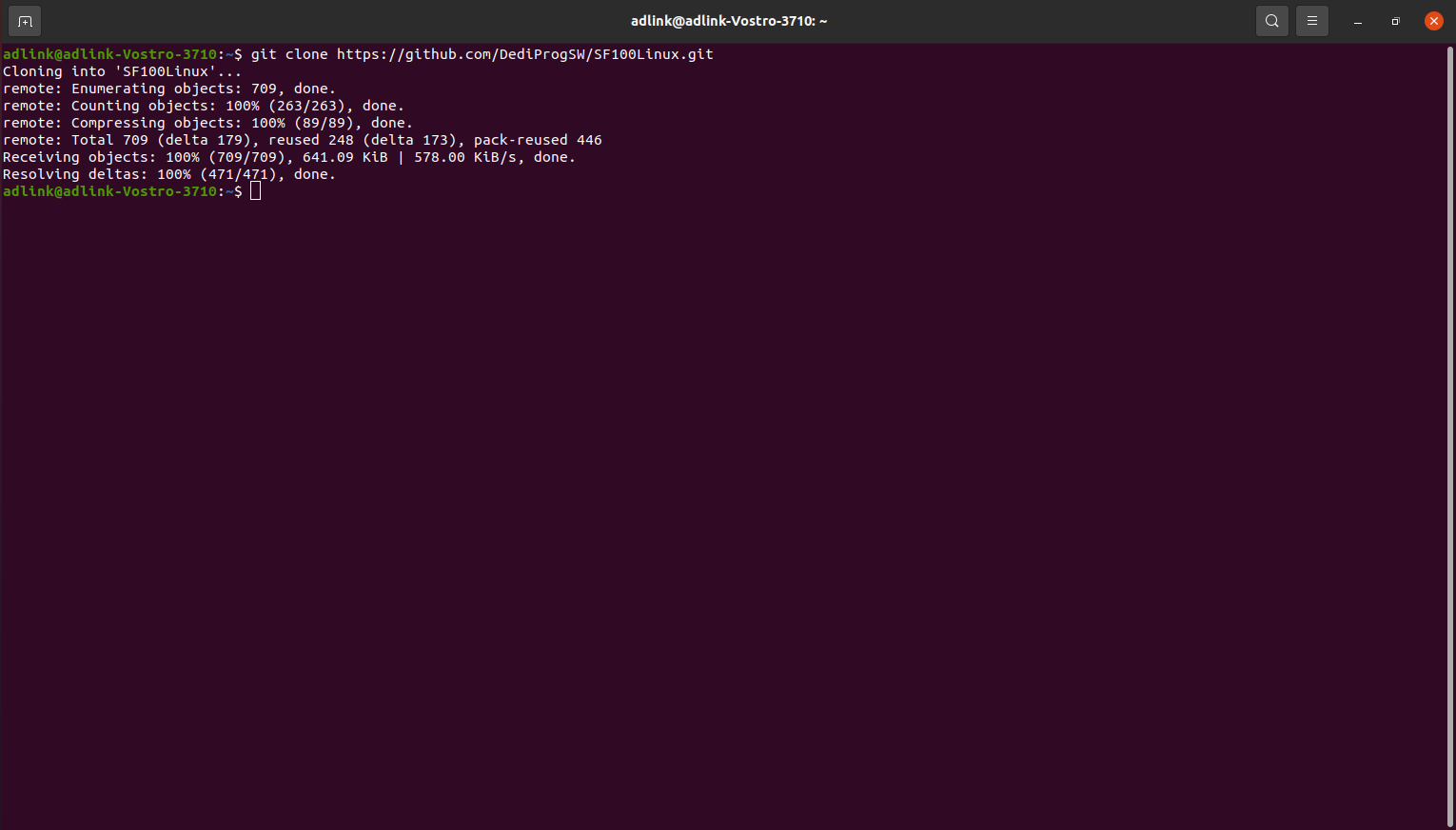
## **2.1 Prerequisites**

* Ampere Altra Devloper Platform
* Linux PC with a USB port
* Dediprog SF100 Programmer Tool with cable
* DB40 A2 Module with cable
* USB to Micro USB cable
* Stable Internet Connection

## **2.2 Flashing Process**

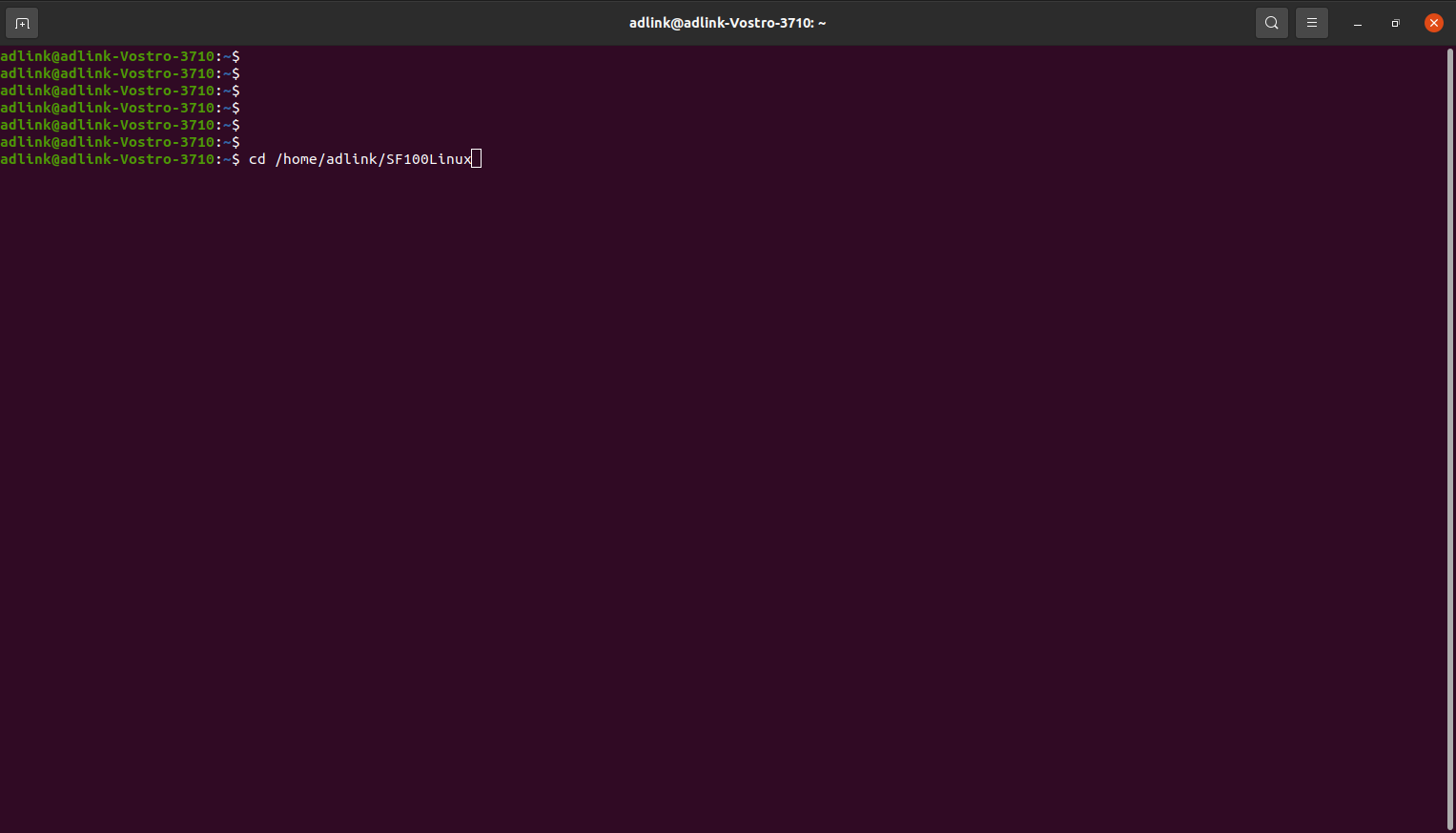
* Clone the SF100 Linux Tool from [SF100LINUX](https://github.com/DediProgSW/SF100Linux) on the host PC using the following command:

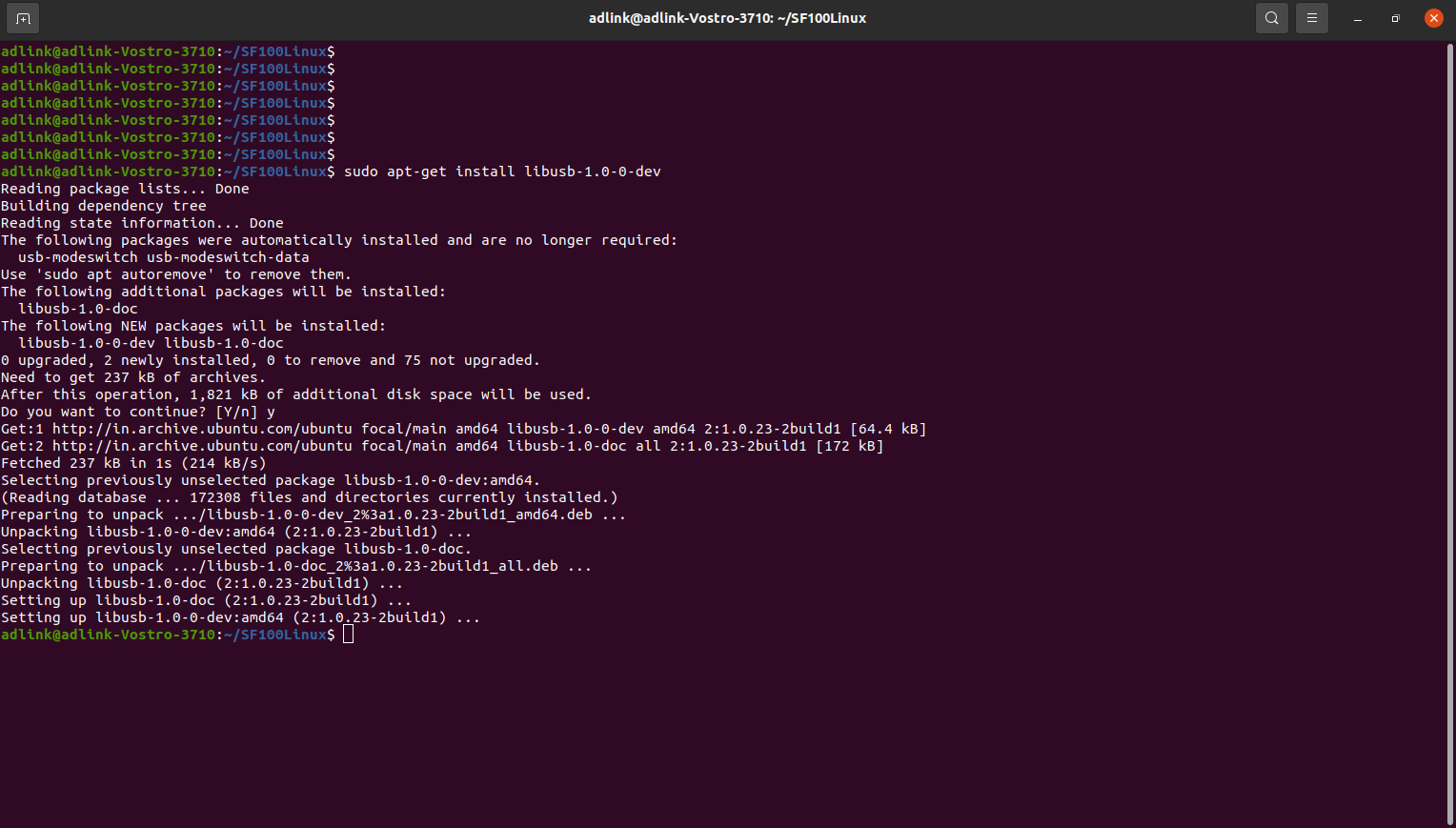
|  |
| --- |
| git clone https://github.com/DediProgSW/SF100Linux |



* Change to the directory where the downloaded tool sources are located and install the libusb-1.0 package with the commands:

|  |
| --- |
| cd <SF100 Tool FilePath> sudo apt-get install libusb-1.0-0-dev |

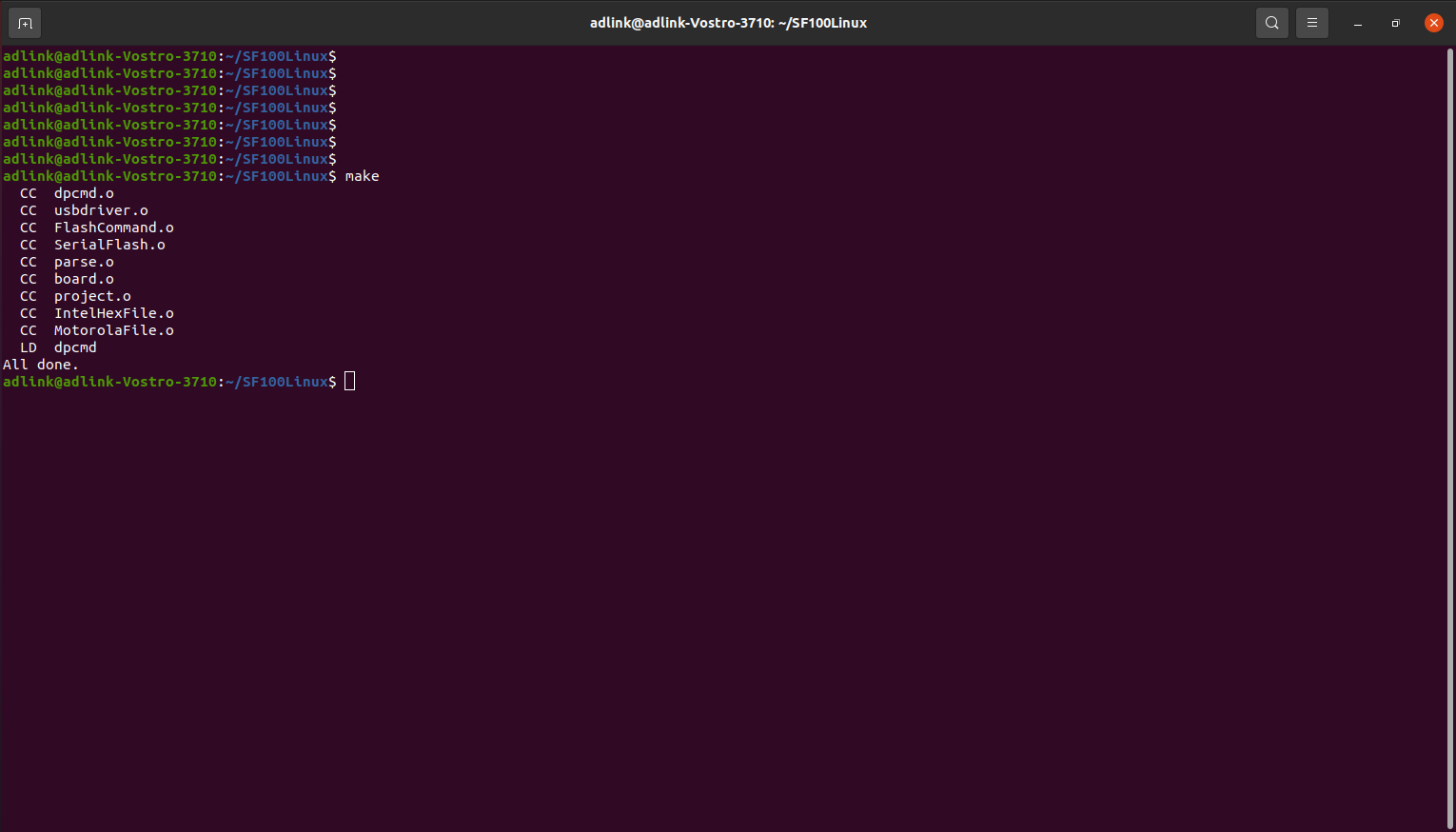




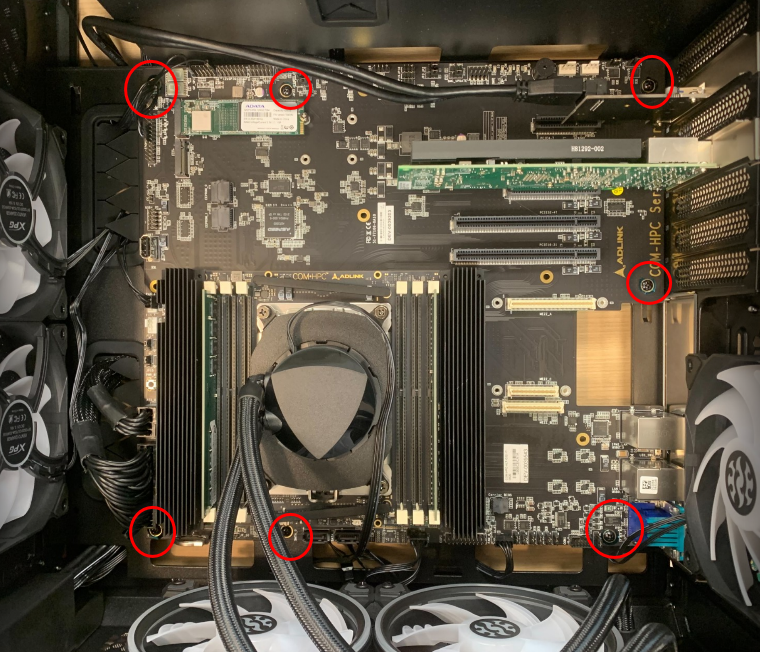
* Build using the make command.

|  |
| --- |
| make |

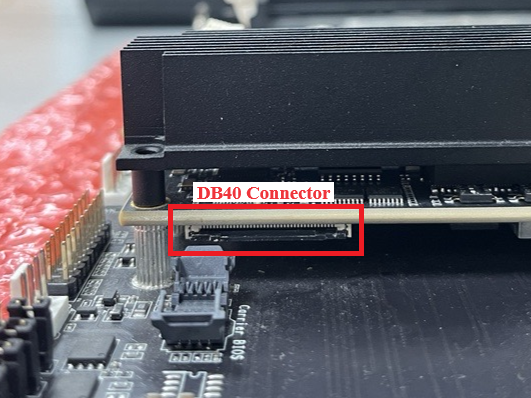
* The resulting binary, called dpcmd, should be located in the root of the source tree.



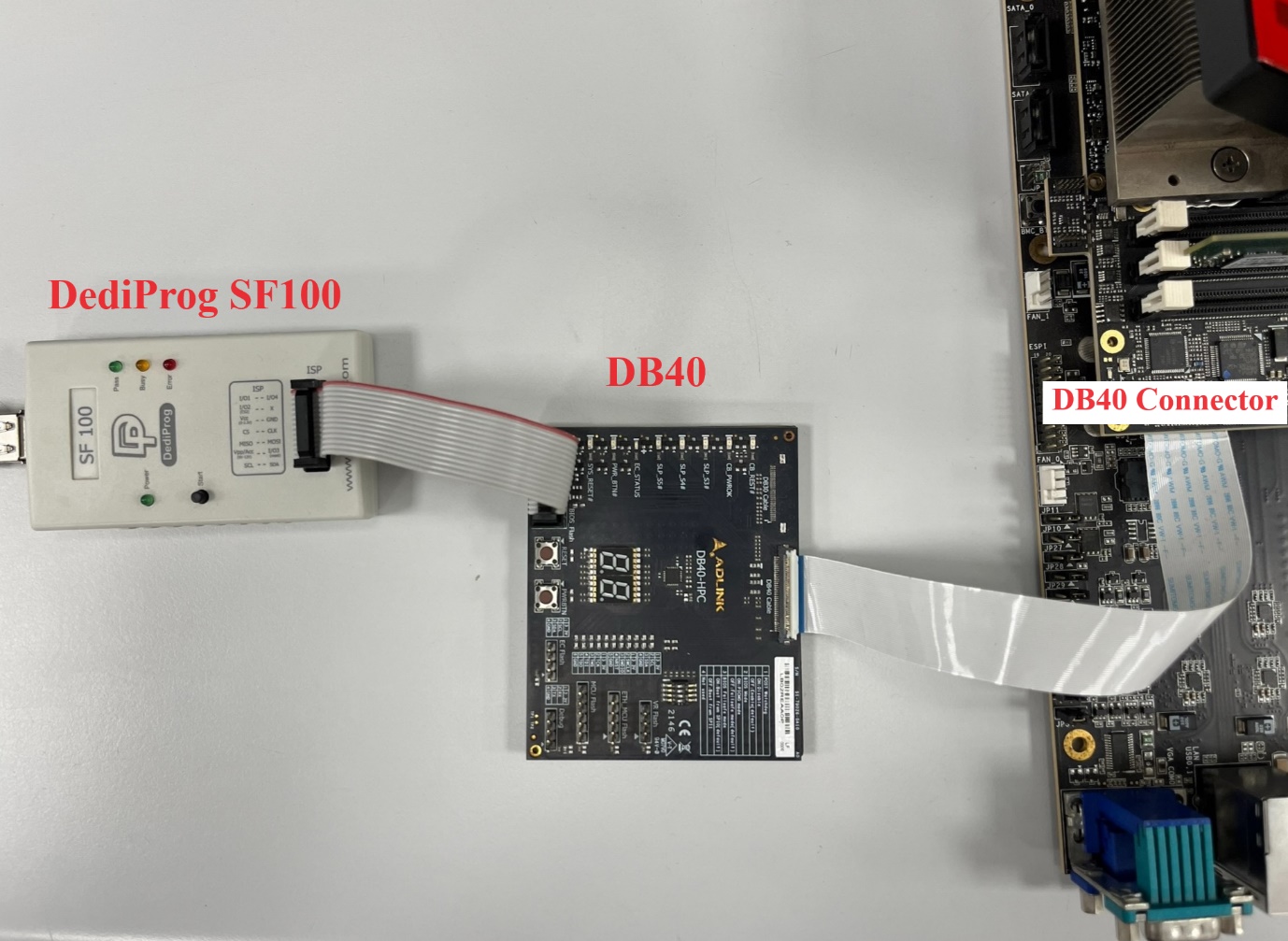
* Turn off the target system.
* Since the DB40 connector is beneath the module, unscrew and remove the carrier board with the module attached.  
  Skip this step if you can access the DB40 connector directly.



* Locate the DB40 connector underneath the module.

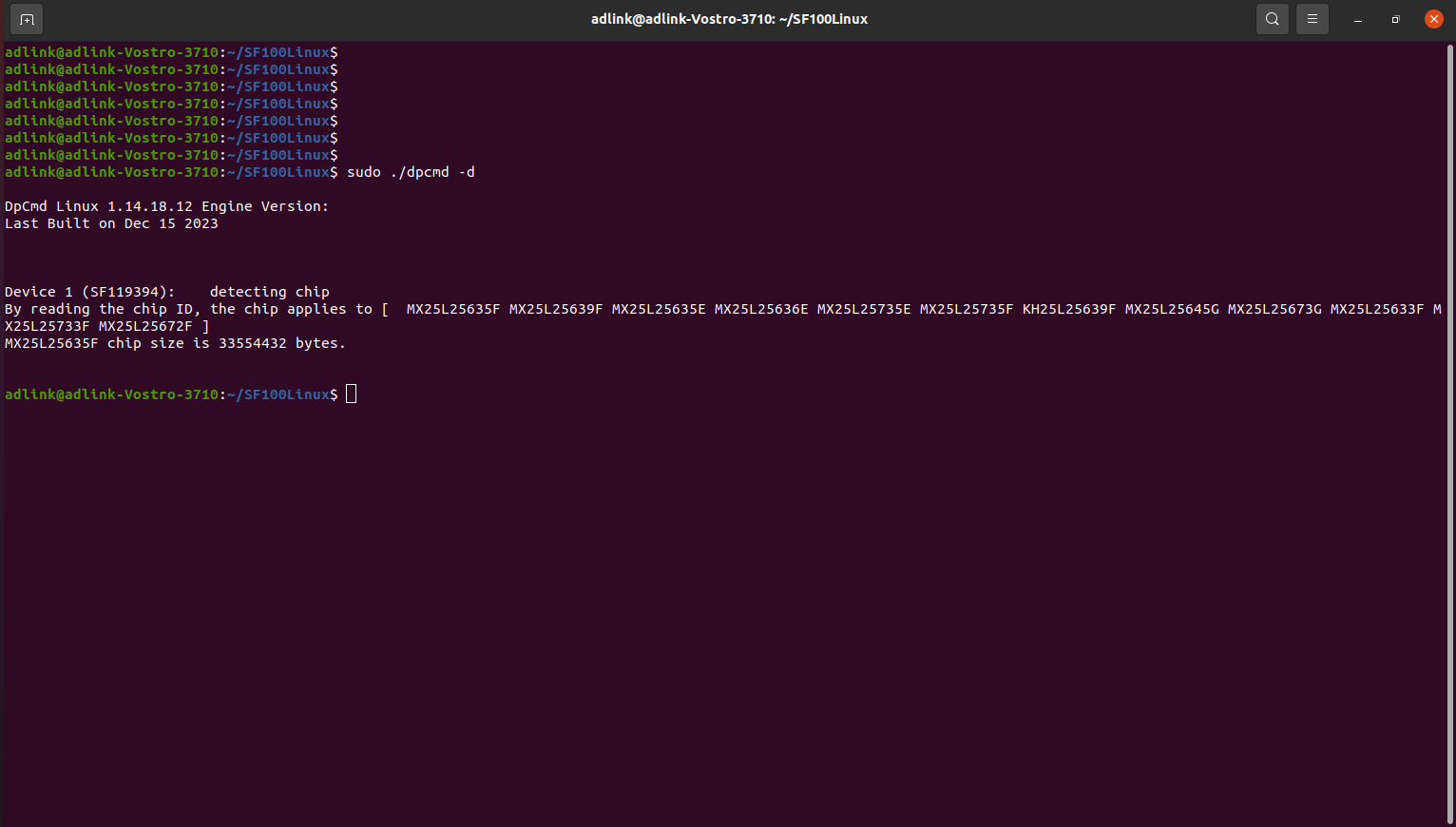


* Connect the DediProg SF100 Programmer tool to the DB40 A2 module and then link the entire setup to the DB40 connector on the target system, as illustrated below.
* Finally, connect the DediProg Engineering tool to the host PC via USB.



* Turn off the target system and execute the following command to check whether the chip is detected:

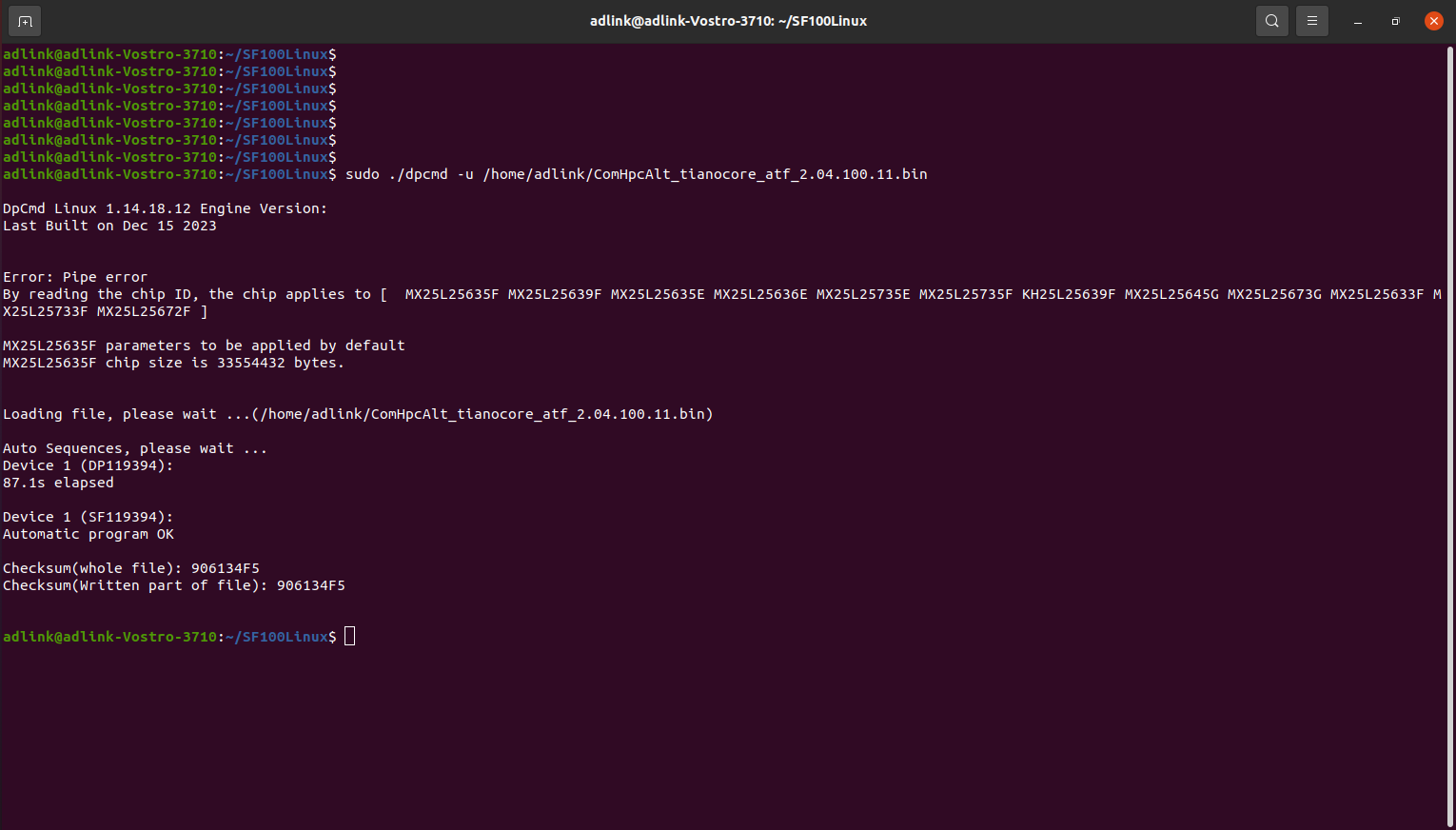
|  |
| --- |
| sudo ./dpcmd -d |



* Once the chip is detected, initiate the flashing process with the following command:

|  |
| --- |
| sudo ./dpcmd -u <path of ComHpcAlt\_tianocore\_atf\_<ver>.bin> |

* Replace <path of ComHpcAlt\_tianocore\_atf\_<ver>.bin> with the actual path, which can be found in the “v2.xx.100.xx\DediprogFlash“ directory of the downloaded firmware source files.



The EDKII firmware is now successfully flashed on the target system.