

AOS USB Console Driver

This installation guide outlines the steps required to download Silicon Labs USB driver to support ADTRAN Operating System (AOS) products with USB console management interfaces.

Directions are given for downloading Silicon Labs USB drivers for Windows and OS X operating systems. Also included are instructions on how to verify that the USB console is seen after connecting the AOS device to a Linux computer. Appendix A outlines the operating systems ADTRAN has tested and confirmed to be compatible with the Silicon Labs USB driver, as well as other resources.

For additional details on specific AOS product features, specifications, installation, and safety, refer to <https://supportforums.adtran.com>.

This guide includes the following sections:

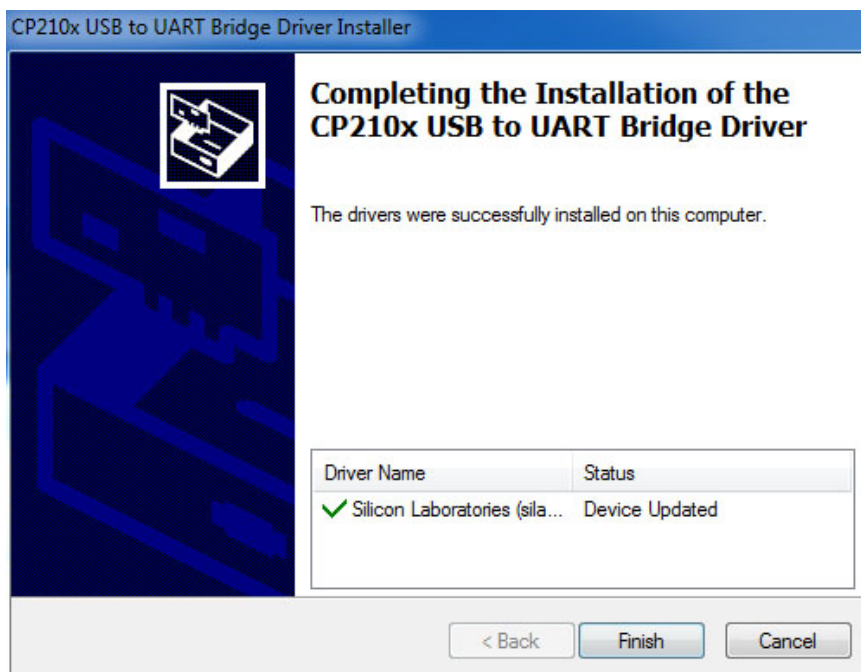
- *Windows Installation Guide on page 2*
- *OS X Installation Guide on page 4*
- *Linux Installation Guide on page 7*
- *Appendix A: Additional Information and Legal Notices on page 9*

Windows Installation Guide

To download the Silicon Labs USB driver for Windows operating system, visit the ADTRAN's [USB Console Driver Download](#) page or the [Silicon Labs CP210x USB to UART Bridge VCP Drivers](#) page.

Install the Drivers

1. Download the correct driver and the latest version for your Windows installation.
2. Extract the zipped file **CP210x_VCP_Windows.zip**.
3. Double-click the applicable file for your computer to open the guided installer. For 64-bit machines, run **CP210xVCPInstaller_x64.exe**. For 32-bit machines, run **CP210xVCPInstaller_x86.exe**. If you are unsure whether your computer is 32-bit or 64-bit, navigate to **Control Panel > System and Security > System**.
4. Follow the instructions in the **CP210x USB to UART Bridge Driver Installer**; accepting the license agreement and default settings. When complete you should see the following message.

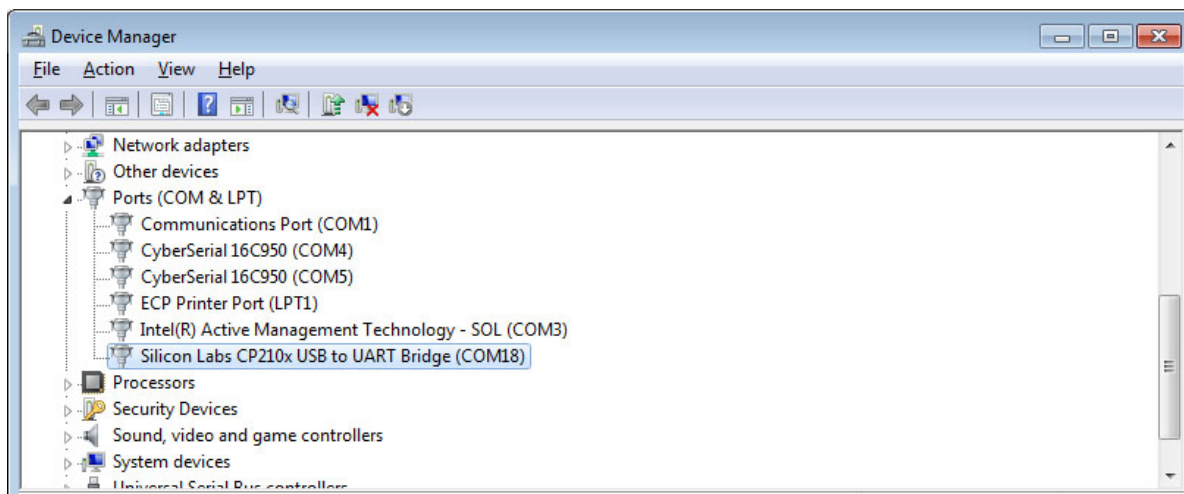


5. When complete, press **Finish** to close the installer.

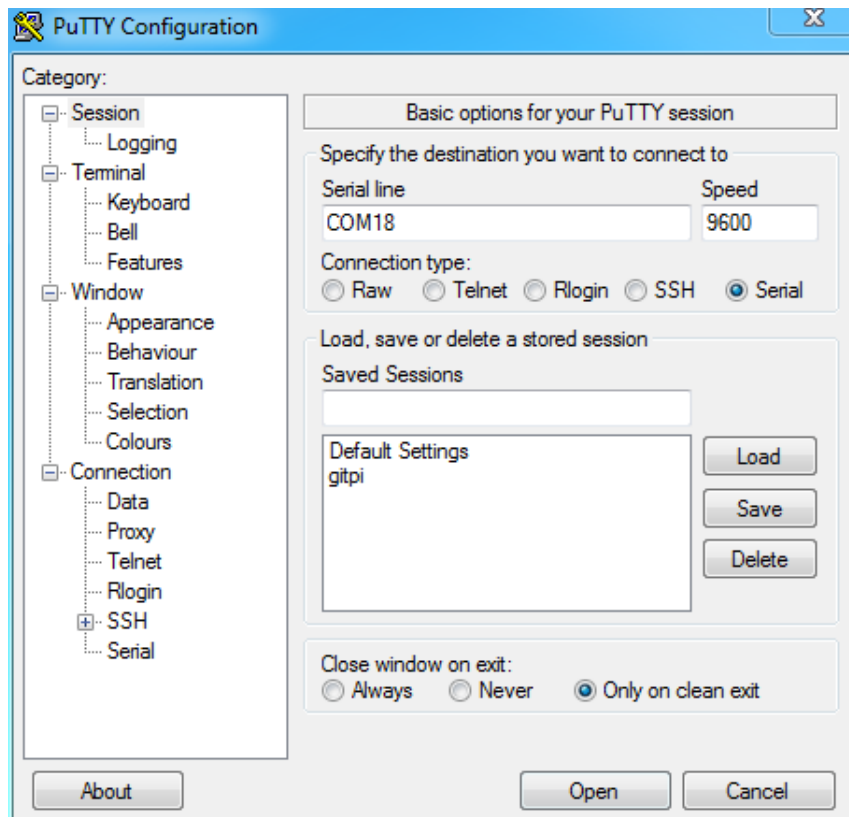
Verify the Drivers Are Installed Correctly

1. Download and install your preferred terminal emulator to your computer. ([TeraTerm](#) and [PuTTY](#) are a couple of examples.) The following example uses PuTTY as the terminal emulator.
2. Plug your USB cable into your AOS unit and apply power to the unit. Refer to the applicable hardware installation guide, available on ADTRAN's [Support Forum](#) for instructions on powering your unit.

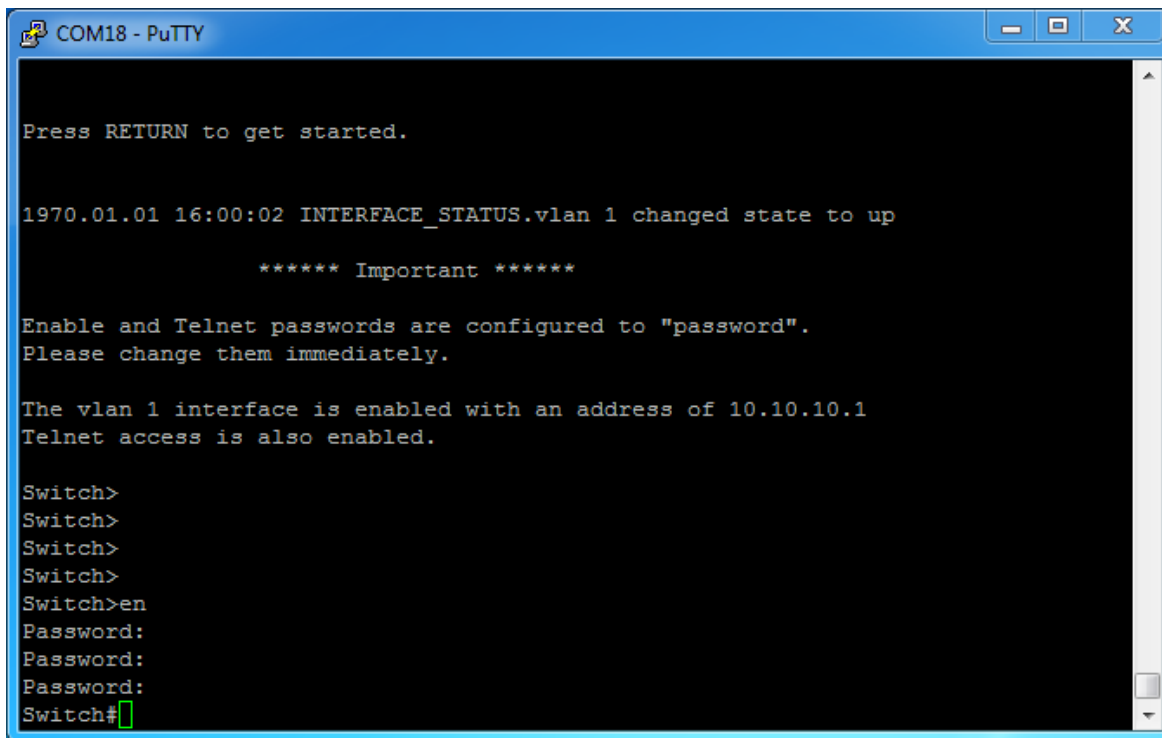
3. Open **Device Manager** to see which COM port the **CP210x USB to UART Bridge** was assigned to. In this example, it was assigned to COM18.



4. Open the COM port in your terminal emulator. The default settings are: 9600 baud, 8 data bits, no parity bits, 1 stop bit, and no flow control. Press **<Enter>** to open the connection.



5. You should see your unit booting up in the console. You have successfully installed and tested the USB Console Driver.



```
COM18 - PuTTY

Press RETURN to get started.

1970.01.01 16:00:02 INTERFACE_STATUS.vlan 1 changed state to up

***** Important *****

Enable and Telnet passwords are configured to "password".
Please change them immediately.

The vlan 1 interface is enabled with an address of 10.10.10.1
Telnet access is also enabled.

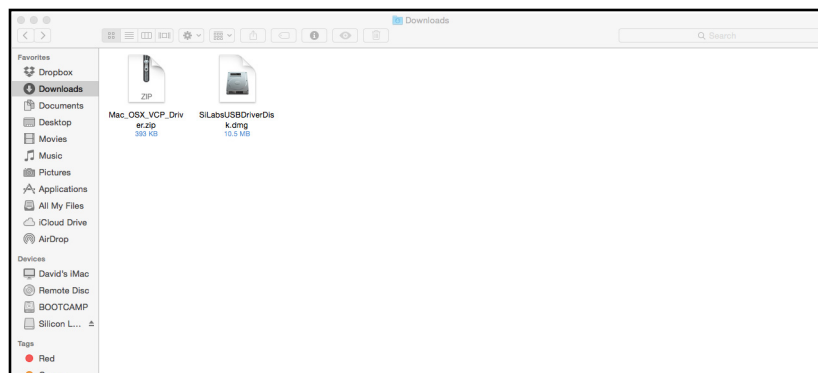
Switch>
Switch>
Switch>
Switch>
Switch>en
Password:
Password:
Password:
Switch#
```

OS X Installation Guide

To download the Silicon Labs USB driver for OS X operating system, visit the ADTRAN's [USB Console Driver Download](#) page or the [Silicon Labs CP210x USB to UART Bridge VCP Drivers](#) page.

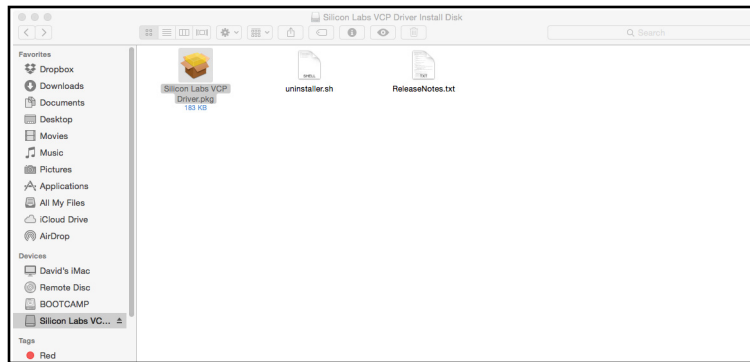
Install the Drivers

1. Download the correct driver and the latest version for your OS X installation.
2. Extract the zipped file **Mac_OSX_VCP_Driver.zip**.

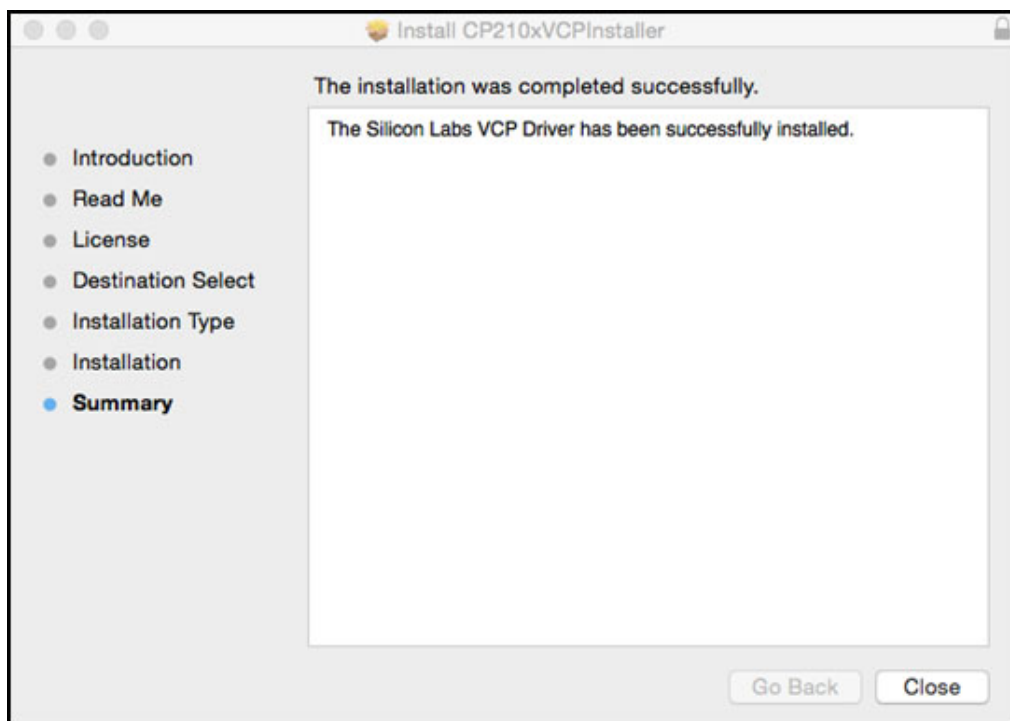


3. Double-click **SiLabsUSBDriverDisk.dmg** to mount the folder to your desktop.

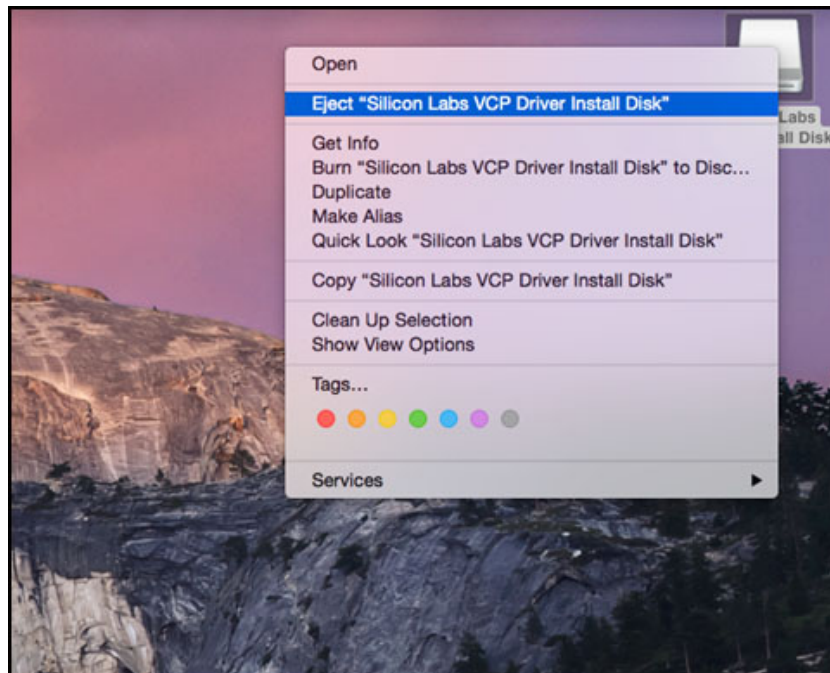
4. Open the mounted folder, **Silicon Labs VCP Driver** on your desktop and double-click the .pkg file.



5. Follow the instructions in the **CP201xVCP Installer**; accepting the license agreement and default settings. When complete you should see the following message.



6. Close the installer and eject the mounted disk.



Verify the Drivers Are Installed Correctly

1. Open **Terminal**. (Alternatively, you could use a terminal emulator program.)
2. Plug in your USB cable to your AOS unit and apply power to the unit. Refer to the applicable hardware installation guide, available on ADTRAN's [Support Forum](#) for instructions on powering your unit.
3. In **Terminal**, enter `ls /dev/tty.*`. You should see a file listed as `/dev/tty.SLAB_USBtoUART` or something similar. This verifies that the computer has found your unit. Continue to the next step.

```
/dev/tty                               /dev/ttyse
/dev/tty.Bluetooth-Incoming-Port      /dev/ttysf
/dev/tty.Bluetooth-Modem              /dev/ttyt0
/dev/tty.SLAB_USBtoUART                /dev/ttyt1
/dev/ttyp0                             /dev/ttyt2
/dev/ttyp1                             /dev/ttyt3
/dev/ttyp2                             /dev/ttyt4
/dev/ttyp3                             /dev/ttyt5
/dev/ttyp4                             /dev/ttyt6
/dev/ttyp5                             /dev/ttyt7
/dev/ttyp6                             /dev/ttyt8
```

4. At the prompt in Terminal, enter `screen /dev/tty.SLAB_USBtoUART`. The command line interface should change to the screen interface.

5. You should see your unit booting up in the console. You have successfully installed and tested the USB Console Driver.



```
Session now available

Press RETURN to get started.

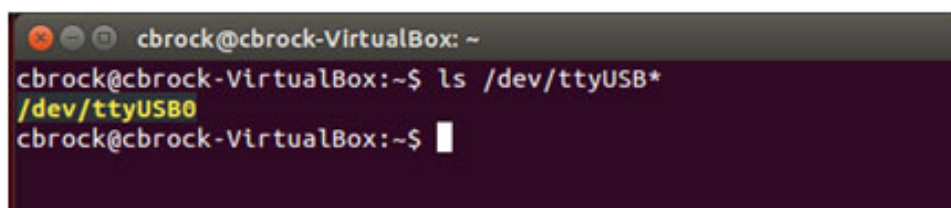
1970.01.01 16:00:02 INTERFACE_STATUS.vlan 1 changed state to up
```

Linux Installation Guide

Recent Linux distributions based off the 3.X.X kernel already include support for the Silicon Labs USB-to-UART driver so there is no need to install a driver. Support for older versions of the kernel is available but is not recommended by ADTRAN.

Verify the Drivers Operate Correctly

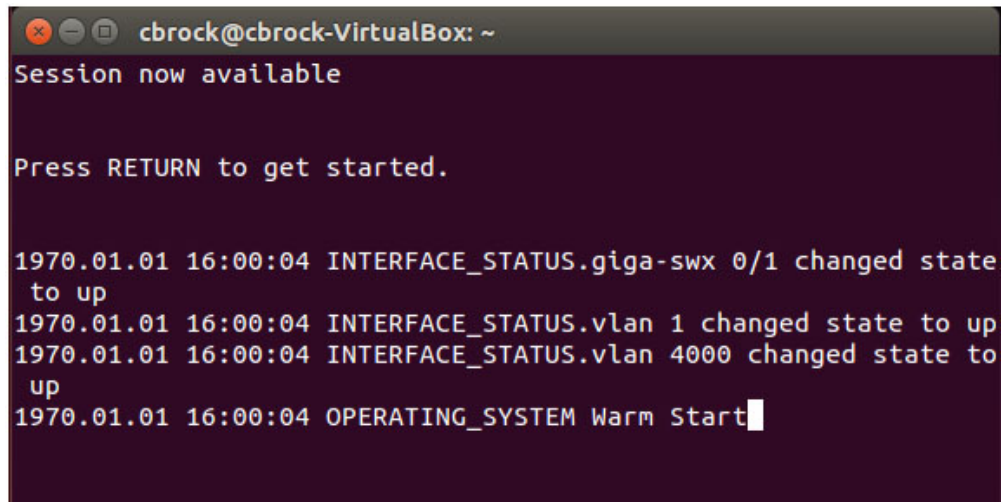
1. From your computer's user interface, open **Terminal**. This example is using Ubuntu 14.04 (with Linux Kernel 3.16.0). You will need sudo privileges.
2. Plug in your USB cable to your AOS unit and apply power to the unit. Refer to the applicable hardware installation guide, available on ADTRAN's [Support Forum](#) for instructions on powering your unit.
3. In **Terminal**, type **ls /dev/ttyUSB***. You should see a file listed as **/dev/ttyUSB0**. If you have more than one USB device plugged into your computer, you could see more than one file. If the AOS device is the most recent USB plugged into your computer, the file name will likely contain the highest number.



```
cbrock@cbrock-VirtualBox: ~
cbrock@cbrock-VirtualBox:~$ ls /dev/ttyUSB*
/dev/ttyUSB0
cbrock@cbrock-VirtualBox:~$
```

4. At the prompt in Terminal, enter **sudo screen /dev/ttyUSB0**. The command line interface should change to the screen interface.

5. You should see your unit booting up in the console. You have successfully tested the USB Console Driver.

A screenshot of a terminal window titled 'cbrock@cbrock-VirtualBox: ~'. The terminal has a dark purple background with white text. It displays the following output:

```
Session now available

Press RETURN to get started.

1970.01.01 16:00:04 INTERFACE_STATUS.giga-swx 0/1 changed state
to up
1970.01.01 16:00:04 INTERFACE_STATUS.vlan 1 changed state to up
1970.01.01 16:00:04 INTERFACE_STATUS.vlan 4000 changed state to
up
1970.01.01 16:00:04 OPERATING_SYSTEM Warm Start
```


Appendix A: Additional Information and Legal Notices

References

- ADTRAN's Support Community <https://supportforums.adtran.com>
- ADTRAN's [USB Console Driver Download](#) Page
- Download [Silicon Labs CP210x USB to UART Bridge VCP Drivers](#)
- Download [PuTTY](#)
- Download [TeraTerm](#)

Supported Operating Systems

The following operating systems have been tested and confirmed to be compatible with the Silicon Labs driver and are supported by ADTRAN. Other operating systems may be supported by the driver but they have not been tested to function properly by ADTRAN. ADTRAN cannot support untested operating system configurations.

- Windows XP 32/64 bit SP2 (Service Pack 2)
- Windows 7 32/64 bit SP1
- Windows 8.1
- OS X Maverick 10.9
- OS X Yosemite 10.10
- Ubuntu 14.04 (with Linux Kernel 3.16.0)
- Mint 17.1 (with Linux Kernel 3.13.0)
- Centos 7.0 (with Linux Kernel 3.10.0)

Support

For additional details on specific AOS product features, specifications, installation, and safety, refer to <https://supportforums.adtran.com>.

To contact Tech Support, phone 888-423-8726 or visit ADTRAN's website to [Open a Support Case](#).

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