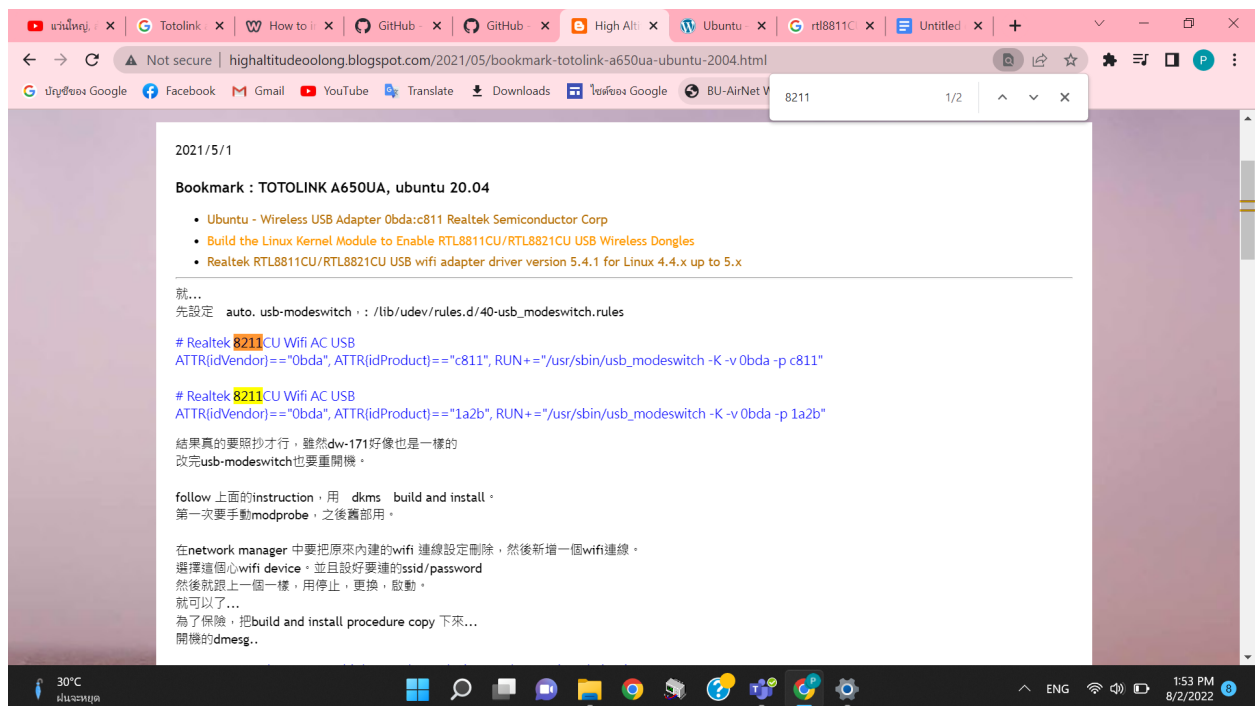


RTL8811CU installation document

- The installation is made explicitly for Wifi / USB Dongle with an RTL8811CU driver. This might not work for other drivers check the device driver before continue the installation.

There is a Totolink A650UA and an Nvidia-Jetson nano in B4301 these will be used as a testbed.



By browsing the internet we can discover the device's driver.

Next, we must locate the possible driver and method to install on Ubuntu OS .
The taken path can be different depending on the driver's version and availability.

For Realtek RTL8811CU/RTL8821CU USB wifi adapter driver version 5.4.1 for Linux 4.4.x up to 5.x apply the following steps

Firstly, before building this driver makes sure `make` , `gcc` , `linux-header/kernel-devel` , `bc` and `git` have been installed. If not do these commands.

For make

```
$ sudo apt install make
```

For gcc

```
$ sudo apt install build-essential
```

```
$ sudo apt-get install manpages-dev
```

For Linux-header

```
$ sudo apt install linux-headers-$(uname -r)
```

For bc

```
$ sudo apt-get install -y bc
```

Lastly for git

```
$ sudo apt install git
```

You can make sure to validate the installation by typing the library will -v if the installation is successful it must display the version of the library.

Next build a folder and clone the git

```
$ mkdir -p ~/build
```

```
$ cd ~/build
```

```
$ git clone https://github.com/brektrou/rtl8821CU.git
```

Next install the driver with make

```
$ cd ~/build/rtl8821CU
```

```
$ make
```

```
$ sudo make install
```

This should complete the installation of the required driver.

Now locate the USB device you can use the command `$ lsusb` first then plug the USB the repeat `$ lsusb` then you can locate the device for this installation

the device is `0bda:1a2b`

To toggle `0bda : 1a2b` do

```
$ sudo usb_modeswitch -KW -v 0bda -p 1a2b
```

This should make an internet connection available.

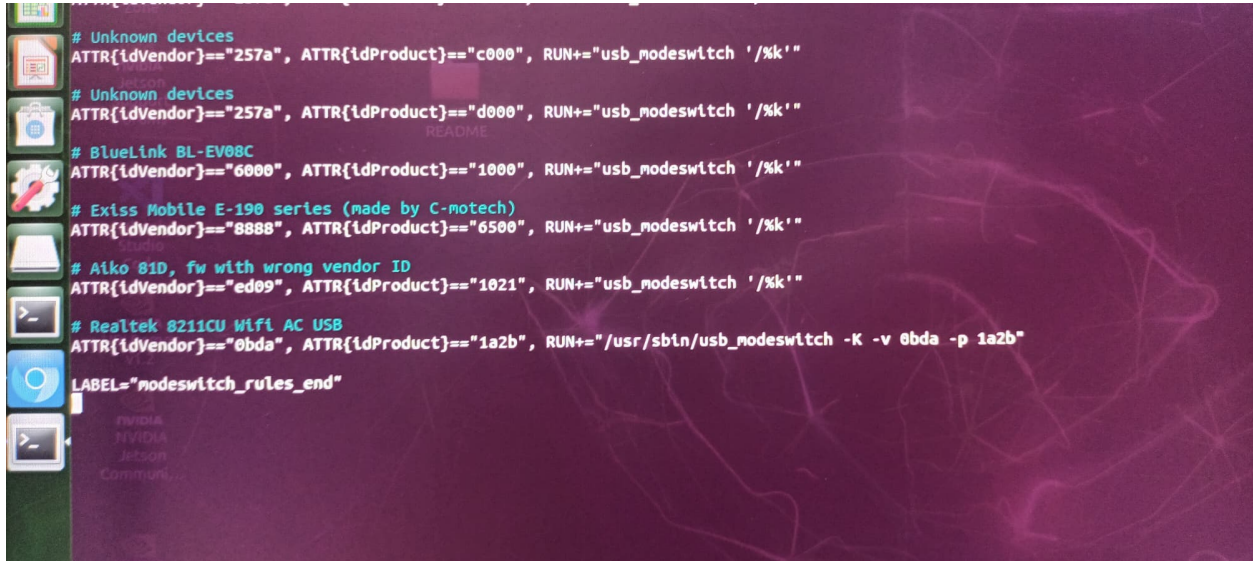
This however needs to be toggled every time you can set a logic to toggle this everytime from startup (Ubuntu 18.04 only) by

```
$ sudo nano /lib/udev/rules.d/40-usb_modeswitch.rules
```

Then append the bottom-most with

```
# Realtek 8211CU Wifi AC USB
```

```
ATTR{idVendor}=="0bda", ATTR{idProduct}=="1a2b",  
RUN+="/usr/sbin/usb_modeswitch -K -v 0bda -p 1a2b"
```

A screenshot of a terminal window with a dark purple background and a light green sidebar on the left containing various application icons. The terminal displays a list of USB modeswitch rules. Each rule is preceded by a comment line starting with '#'. The rules specify vendor and product IDs and the command to run when a device is connected. The last rule, for Realtek 8211CU Wifi AC USB, is highlighted in green. The terminal text is as follows:

```
# Unknown devices  
ATTR{idVendor}=="257a", ATTR{idProduct}=="c000", RUN+="usb_modeswitch '%k'"  
# Unknown devices  
ATTR{idVendor}=="257a", ATTR{idProduct}=="d000", RUN+="usb_modeswitch '%k'"  
# BlueLink BL-EV08C  
ATTR{idVendor}=="6000", ATTR{idProduct}=="1000", RUN+="usb_modeswitch '%k'"  
# Exiss Mobile E-190 series (made by C-motech)  
ATTR{idVendor}=="8888", ATTR{idProduct}=="6500", RUN+="usb_modeswitch '%k'"  
# Aiko 81D, fw with wrong vendor ID  
ATTR{idVendor}=="ed09", ATTR{idProduct}=="1021", RUN+="usb_modeswitch '%k'"  
# Realtek 8211CU Wifi AC USB  
ATTR{idVendor}=="0bda", ATTR{idProduct}=="1a2b", RUN+="/usr/sbin/usb_modeswitch -K -v 0bda -p 1a2b"  
LABEL="modeswitch_rules_end"
```

If any device with this following ID would automatically toggle right after startup.

