# Install TP-Link AC600 Archer T2U Nano WiFi USB Adapter In Linux

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In this brief guide, I will explain how to install TP-Link AC600 Archer T2U Nano WiFi USB adapter in Fedora, Ubuntu and openSUSE Linux distributions and how to connect to 5G Wireless Internet connection.

## Contents



## Introduction

A few days ago, I switched to Jio Fiber 5G broadband connection. The Internet provider gave me a dual band router that supports both 2.4 GHz and 5 GHz channel.

Unfortunately, the built-in WiFi network interface in my Laptop doesn't support 5 GHz channel. It is bit old Dell Laptop that supports 2.4 GHz channel only.

After doing a lot of web search, I bought **TP-Link AC600 USB WiFi Adapter (Archer T2U Nano)** from Amazon.

Compared to other WiFi USB network adapters, the TP-Link AC600 Archer T2U model has many advantages. It is tiny, compact and high speed WiFi adapter that supports 2.4 GHz and 5 GHz band.

It is capable to provide 433 Mbps speed on 5GHz (ideal for HD streaming and online gaming) and 200Mbps on 2.4GHz (perfect for normal web browsing).

Archer T2U nano adapter supports 64/128-bit WEP, WPA/WPA2, and WPA-PSK/WPA2-PSK encryption standards. So your wireless connections are safe from intruders.

Another notable advantage of Archer T2U nano WiFi USB adapter is it supports WiFi roaming. It automatically connects to the suitable WiFi network near you.

If you are ever looking for a dual-band WiFi router for faster speed and extended range, TP-Link AC600 Archer T2U Nano WiFi USB adapter is undoubtedly good choice.

Even though Archer T2U nano adapter has some good features, it has one drawback. It supports Windows and Mac OS only. There is no official drivers for Linux.

Fortunately, I came across an unofficial driver for Archer T2U Nano on GitHub and it works out of the box on Fedora and Ubuntu systems.

## Install TP-Link AC600 Archer T2U Nano WiFi USB Adapter In Linux

As stated already, Archer T2U nano works well both on Fedora, Ubuntu and openSUSE Linux distributions. First, we will see how to install TP-Link AC600 Archer T2U Nano wifi adapter on Fedora.

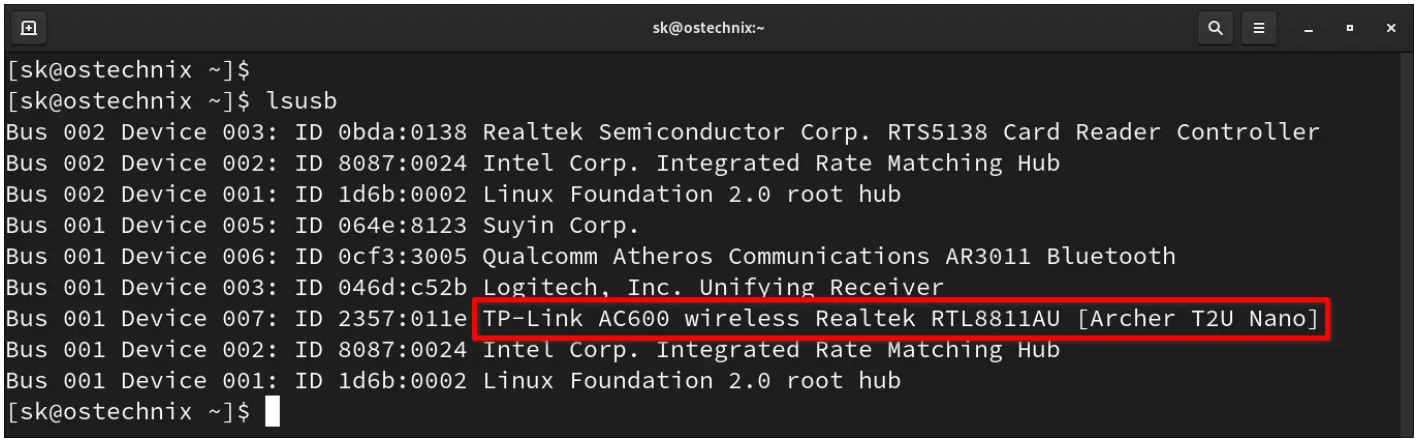
### 1. Install TP-Link AC600 Archer T2U Nano on Fedora

First, check if the TP-Link Archer T2U is detected on your Fedora system by listing the USB devices using command:

```
$ lsusb
```

**Sample output:**

```
Bus 002 Device 003: ID 0bda:0138 Realtek Semiconductor Corp. RTS5138 Card Reader Con
Bus 002 Device 002: ID 8087:0024 Intel Corp. Integrated Rate Matching Hub
Bus 002 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 005: ID 064e:8123 Suyin Corp.
Bus 001 Device 006: ID 0cf3:3005 Qualcomm Atheros Communications AR3011 Bluetooth
Bus 001 Device 003: ID 046d:c52b Logitech, Inc. Unifying Receiver
Bus 001 Device 007: ID 2357:011e TP-Link AC600 wireless Realtek RTL8811AU [Archer T2
Bus 001 Device 002: ID 8087:0024 Intel Corp. Integrated Rate Matching Hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```




List USB devices in Linux

As you can see, TP-Link AC600 Archer T2U nano model wireless card is detected. Let us go ahead and install Archer T2U nano driver in Linux.

Before installing the Archer T2U nano driver, make sure you have installed the correct Kernel header files using command:

```
$ sudo dnf install "kernel-devel-uname-r == $(uname -r)"
```

If your Kernel and Kernel headers' version are different, the TP-Link WiFi card driver will not work. So it is **mandatory to install the correct Kernel header files**.

Next install the `dkms` package which is used automatically recompile and install a kernel module when a new kernel gets installed or updated.

To install `dkms` in Fedora, run:

```
$ sudo dnf install dkms
```

Since we are going to compile the drivers from source, we need to install `make` and `git`:

```
$ sudo dnf install make git
```

Next, git clone the `rtl8812au` GitHub repository:

```
$ git clone https://github.com/aircrack-ng/rtl8812au.git
```

**Sample output:**

```
Cloning into 'rtl8812au'…
remote: Enumerating objects: 11047, done.
remote: Counting objects: 100% (85/85), done.
remote: Compressing objects: 100% (57/57), done.
remote: Total 11047 (delta 31), reused 51 (delta 26), pack-reused 10962
Receiving objects: 100% (11047/11047), 70.94 MiB | 2.37 MiB/s, done.
Resolving deltas: 100% (7695/7695), done.
```

The rtl8812au GitHub repository contains RTL8812AU/21AU and RTL8814AU drivers with monitor mode and frame injection.

The above command clones the contents of rtl8812au GitHub repository in a local directory named `rtl8812au`. Cd into the cloned directory:

```
$ cd rtl8812au/
```

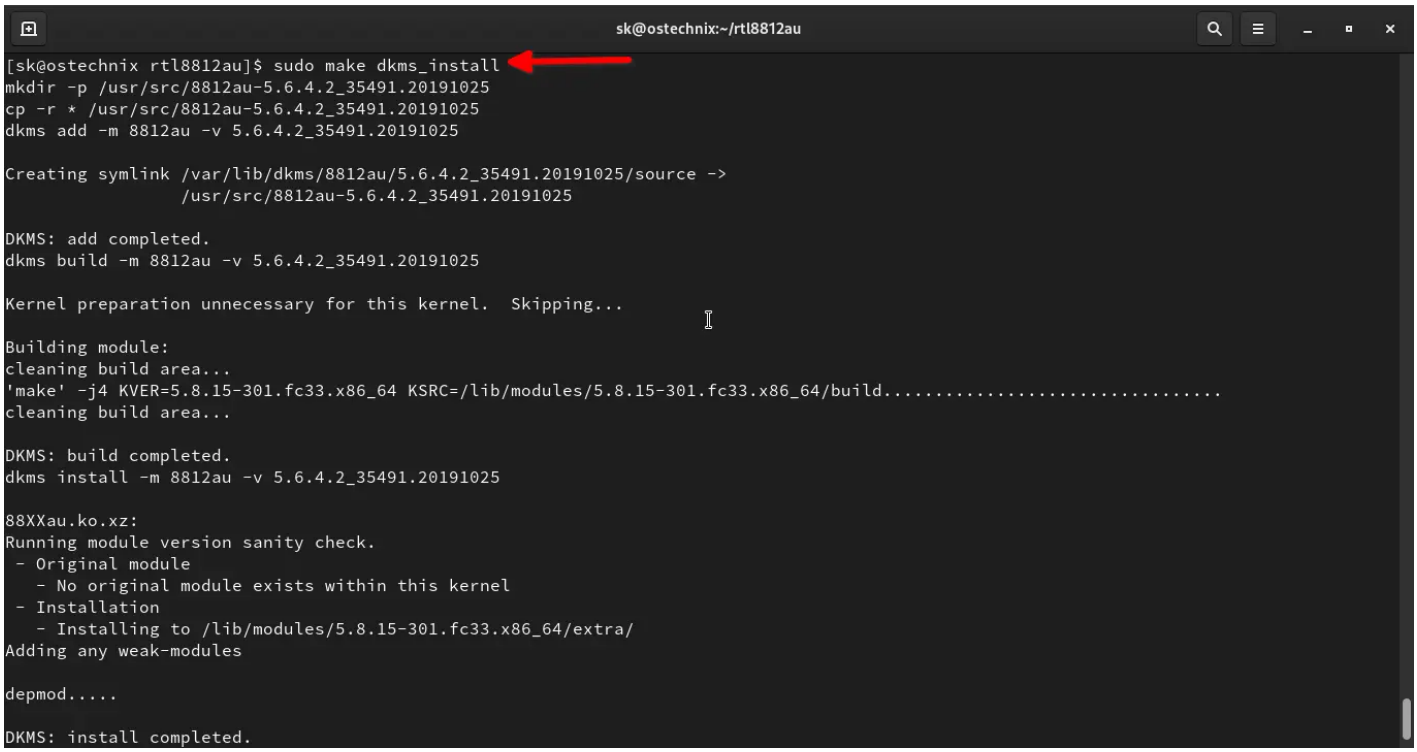
Run the following command to compile and install TP-Link AC600 Archer T2U Nano WiFi USB adapter in your Fedora system:

```
$ sudo make dkms_install
```

**Sample output:**

```
mkdir -p /usr/src/8812au-5.6.4.2_35491.20191025
 cp -r * /usr/src/8812au-5.6.4.2_35491.20191025
 dkms add -m 8812au -v 5.6.4.2_35491.20191025
 Creating symlink /var/lib/dkms/8812au/5.6.4.2_35491.20191025/source ->
                  /usr/src/8812au-5.6.4.2_35491.20191025
 DKMS: add completed.
 dkms build -m 8812au -v 5.6.4.2_35491.20191025
 Kernel preparation unnecessary for this kernel.  Skipping…
 Building module:
 cleaning build area…
 'make' -j4 KVER=5.8.15-301.fc33.x86_64 KSRC=/lib/modules/5.8.15-301.fc33.x86_64/buil
 cleaning build area…
 DKMS: build completed.
 dkms install -m 8812au -v 5.6.4.2_35491.20191025
 88XXau.ko.xz:
 Running module version sanity check.
 Original module
 No original module exists within this kernel
 Installation
 Installing to /lib/modules/5.8.15-301.fc33.x86_64/extra/
 Adding any weak-modules
 depmod…..
 DKMS: install completed.
```

```
dkms status
8812au, 5.6.4.2_35491.20191025, 5.8.15-301.fc33.x86_64, x86_64: installed
```




Install TP-Link AC600 Archer T2U Nano WiFi USB adapter in Fedora Linux

Once the driver is installed, remove the USB adapter and plug in again. The LED in the Archer T2U nano adapter will start to blink.

You can verify if the Archer T2U nano driver (i.e. `RTL8812AU`) is installed and loaded with command:

```
$ sudo dkms status
```

If you see an output like below, congratulations! TP-Link AC600 (Archer T2U Nano) Wireless adapter has been successfully installed!

```
8812au, 5.6.4.2_35491.20191025, 5.8.15-301.fc33.x86_64, x86_64: installed
```

## 2. Install TP-Link AC600 Archer T2U Nano on Ubuntu

Installing TP-Link AC600 Archer T2U nano wifi USB adapter in Ubuntu is same as above.

Install the necessary dependencies and Kernel headers in Ubuntu Linux with command:

```
$ sudo apt install dkms git build-essential libelf-dev linux-headers-$(uname -r)
```

Git clone the `rtl8812au` GitHub repository:

```
$ git clone https://github.com/aircrack-ng/rtl8812au.git
```

Cd into the cloned directory:

```
$ cd rtl8812au/
```

Finally, install TP-Link AC600 Archer T2U Nano WiFi USB adapter in Ubuntu using command:

```
$ sudo make dkms_install
```

Unplug the TP-Link Archer T2U nano adapter and plug it again. The LED will start to blink. Verify if the driver is installed and loaded using command:

```
$ sudo dkms status
```

If the TP-Link AC600 WiFi USB adapter is installed, you will see the following output:

```
8812au, 5.6.4.2_35491.20191025, 5.11.15-1-default, x86_64: installed
```

## 3. Install TP-Link AC600 Archer T2U Nano on openSUSE

Install Kernel headers and all necessary prerequisites on your openSUSE machine:

```
$ sudo zypper install kernel-source
```

```
$ sudo zypper install git dkms
```

Git clone the `rtl8812au` GitHub repository:

```
$ git clone https://github.com/aircrack-ng/rtl8812au.git
```

Cd into the cloned directory:

```
$ cd rtl8812au/
```

Run the following command to install TP-Link AC600 Archer T2U Nano WiFi USB adapter in openSUSE:

```
$ sudo make dkms_install
```

Remove he TP-Link Archer T2U nano adapter and plug it again. The LED will start to blink. Verify if the driver is installed and loaded using command:

```
$ sudo dkms status
```

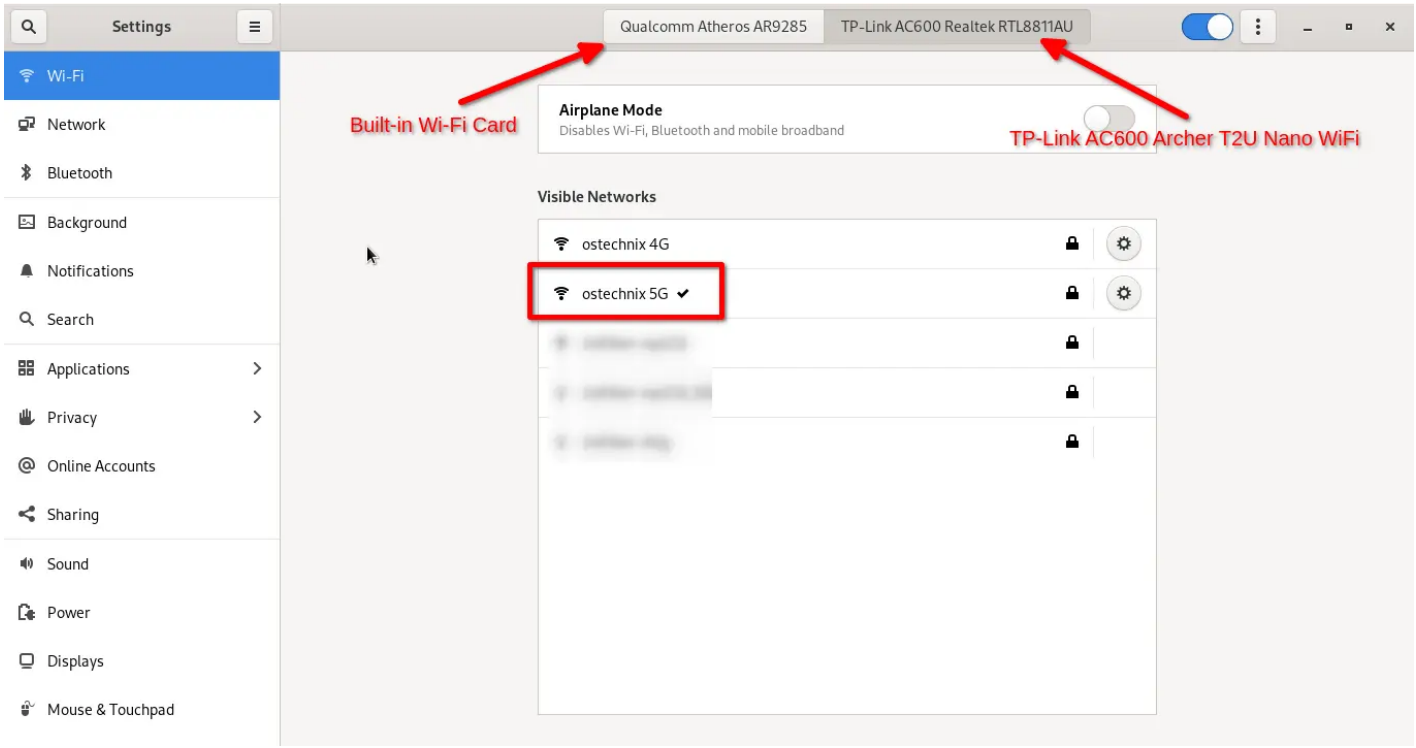
If the TP-Link AC600 WiFi USB adapter is installed correctly, you will see the following output:

```
8812au, 5.6.4.2_35491.20191025, 5.11.15-1-default, x86_64: installed
```

## Connect to 5G Wireless network in Linux

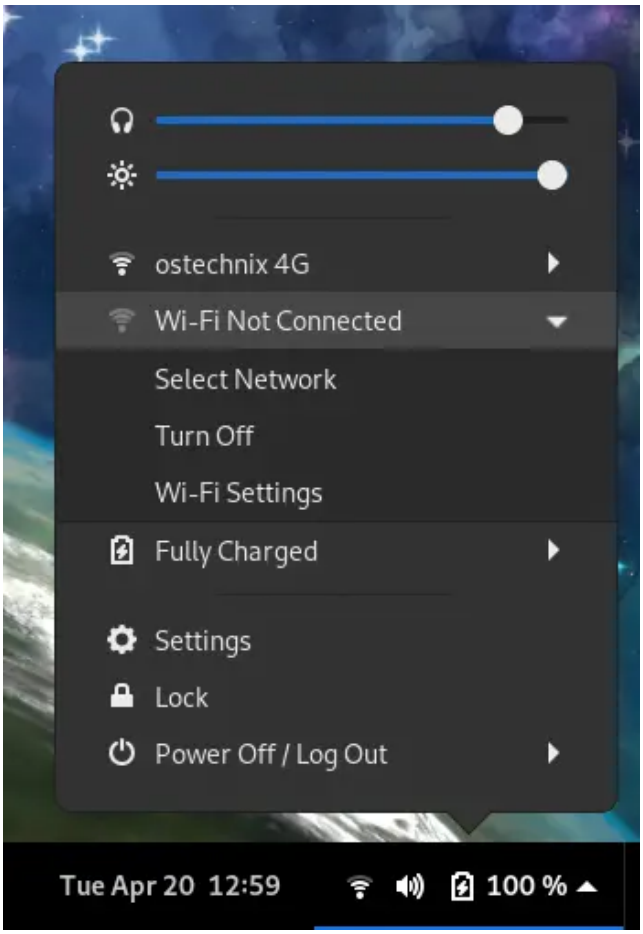
Open **System Settings** in your Linux machine. Under **WiFi** section, you will see there are two WiFi adapters listed. One is built-in WiFi interface and another one is TP-Link AC600 Archer T2U nano USB WiFi adapter.

Click the TP-Link card and you will see the list of available 5G wireless connections. Choose a 5G network in the list and click Connect.



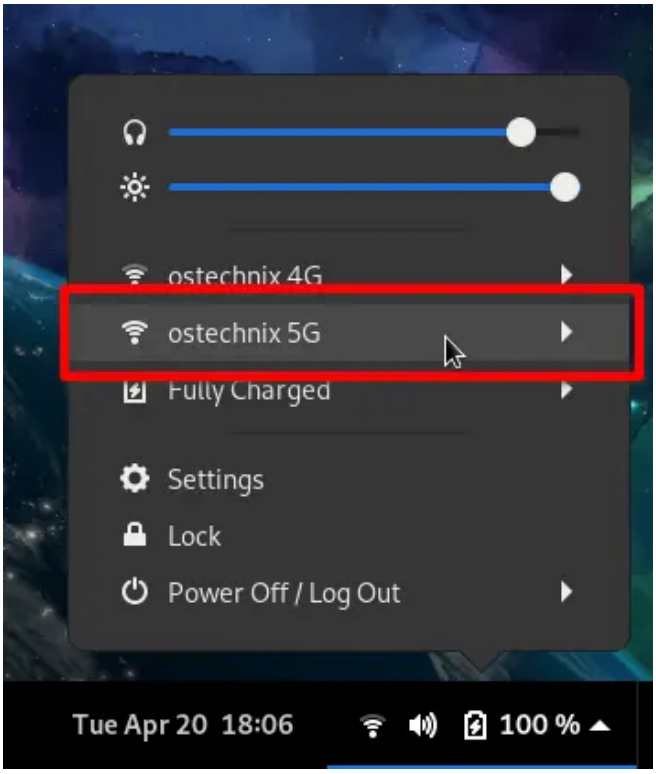

Connect to 5G Wireless network in Linux

Alternatively, you can connect to 5G WiFi network from the Gnome Top bar menu as well. Open the pop out menu from the Top bar, and click "Select Network" option.




Select WiFi network from topbar menu in Linux

Choose the 5G wifi network in the list and click Connect.




Connect to 5G wifi network

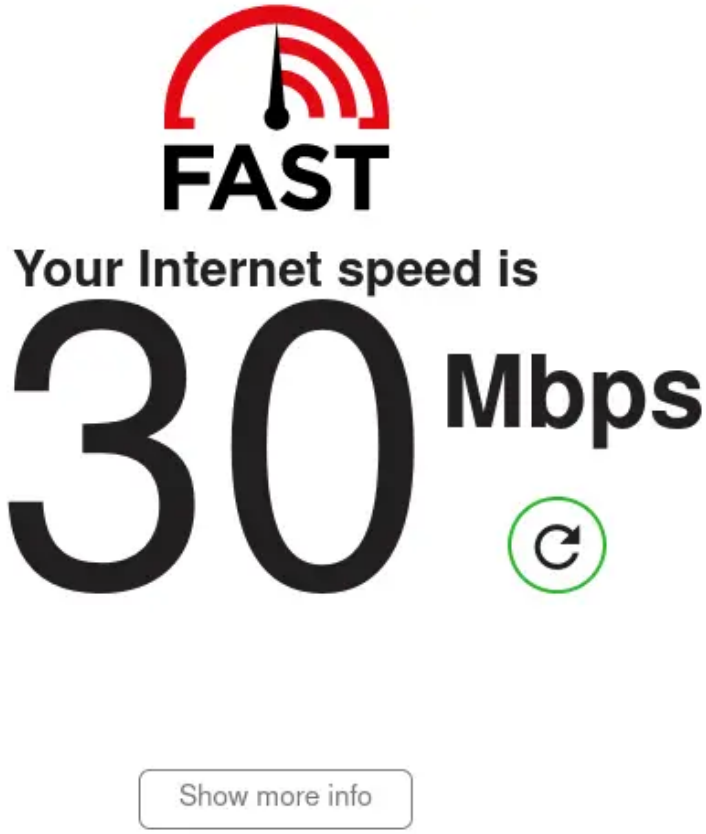
That's it. Start using High Speed 5G Internet connection in your laptop/desktop.

To view the list of WiFi connections from the command line, run:

```
$ nmcli device wifi list
```

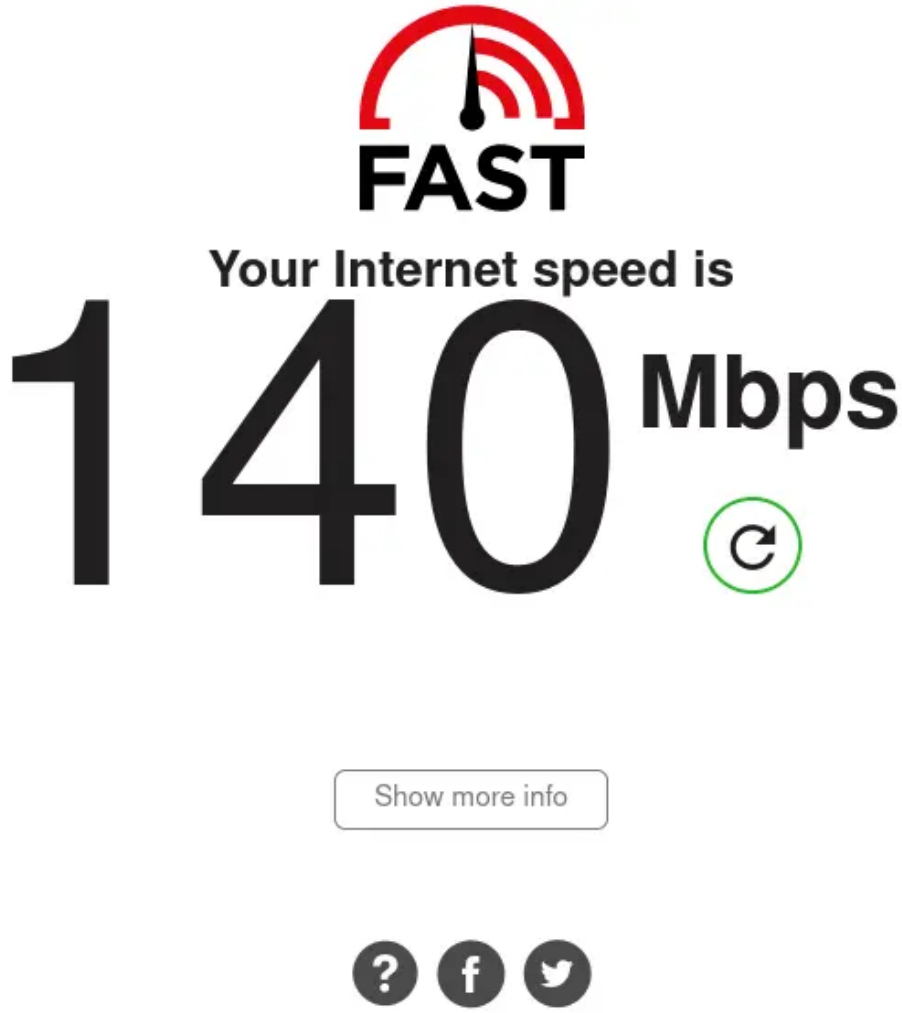
Here is my Internet speed on 2.4 GHz and 5 GHz Wireless adapters.

Internet speed on 2.4 GHz (onboard WiFi):




Internet speed on 2.4 GHz WiFi in Linux

Internet speed on 5 GHz (TP-Link AC600 Archer 2TU Nano WiFi USB adapter):




Internet speed on 5 GHz (TP-Link AC600 Archer 2TU Nano) WiFi in Linux

I have been using TP-Link AC600 Archer T2U Nano WiFi USB adapter in my Dell Laptop for the past few days. So far it works just fine and I don't have any issues with it.

## Uninstall driver

To remove the driver from your system, cd into the directory that contains the source code and execute the following command:

```
$ sudo make dkms_remove
```

## Conclusion

If you want to connect to 5G networks in your legacy Laptop or Desktop, just buy TP-Link AC600 Archer T2U Nano WiFi USB adapter or any other 5G supported WiFi adapter and enjoy High Speed Internet connectivity.

**Resource:**

- **RTL8812AU/21AU Wireless drivers for Linux**