

How to use DR9074-Triband M.2 wifi module together with Wallys router PCBA or a third party x86 ecosys like Ubuntu?

As you know, Wallys recently has launched two new unique Wifi modules DR9074-Triband M.2 and DR9074-DB mPCIe, Today, this article will present how to use the module together with target platform

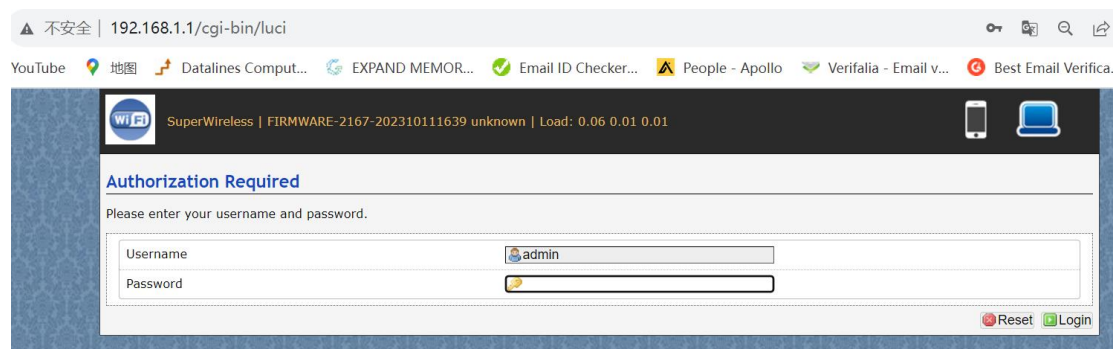
(1) Usage with Wallys router PCBA

DR6018 PCBA x1 (the board has to be pre-flashed with an exclusive version of firmware which we developed via QSDK and bootargs has been pre-set under U-boot CLI to ensure the correct board_id for the module)

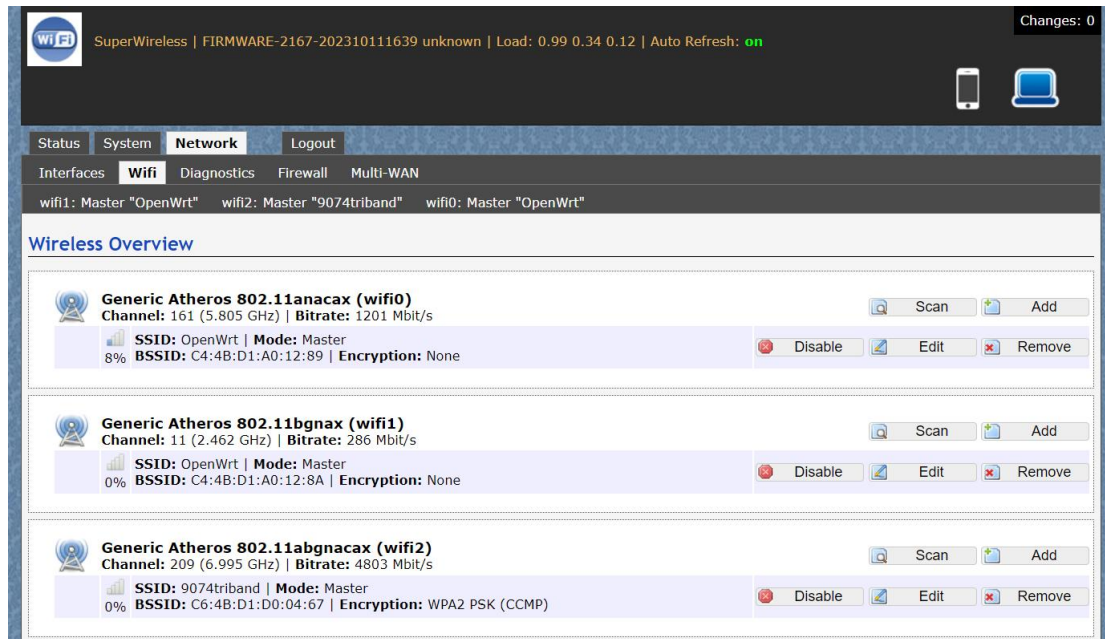
DR9074-Triband M.2 wifi module x1



After we plug the module onboard and power on, we can access to the GUI webpage via board's default ip address 192.168.1.1, login



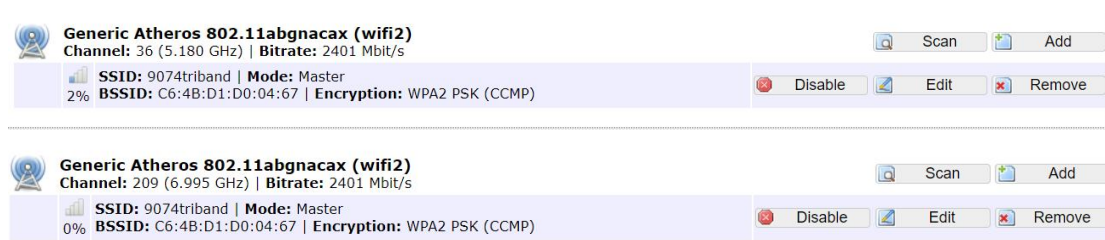
Network>Wifi, at this section, as we can see, there are three radios available, they are Wifi0(2.4G radio),Wifi1(2.4G radio), Wifi2(9074-triband selectable radio)



Let's configure the 9074-triband radio, click Edit icon to enter its operation mode
If you intend to use this radio at 2.4G frequency, set Mode to 802.11g+n or 802.11axg , select a fixed frequency like 2417 Mhz, save & apply



If you intend to use this radio at 5G or 6G frequency, set Mode to 802.11axa, select a fixed frequency like 5180 Mhz or 6995Mhz, kindly note that WPA3 encryption is required for 6G mode



Interface Configuration

General Setup | Wireless Security | MAC-Filter | Advanced Settings

Encryption: WPA3

SAE:

SAE PASSWORD: 12345678

SAE PWE:

SAE MFP:

Back to Overview | Reset | Save | Save & Apply

Bitrate can be up to 4803Mbit/s under 160Mhz channel spectrum width, both 5G and 6G mode support 160Mhz channel spectrum width

And the 9074-triband module can work under both ap and sta mode

Interface Configuration

General Setup | Wireless Security | MAC-Filter | Advanced Settings

ESSID: 9074triband

Mode: Access Point (WDS)

Guard Interval: [dropdown]

Hide ESSID: [checkbox]

Access Point (WDS) | Client (WDS) | Static WDS

Back to Overview | Reset | Save | Save & Apply

(2) Usage with x86 Platform Ubuntu

Desktop PC x1 installed Ubuntu 22.04

DR9074-triband module x1

DR3G11 adpater x1

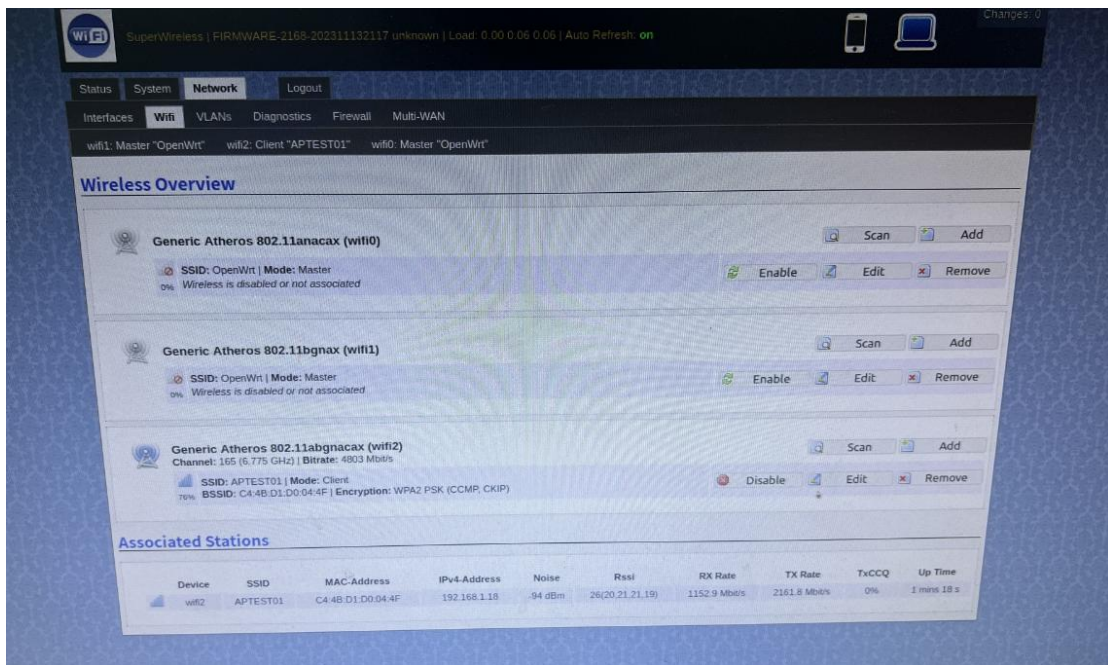
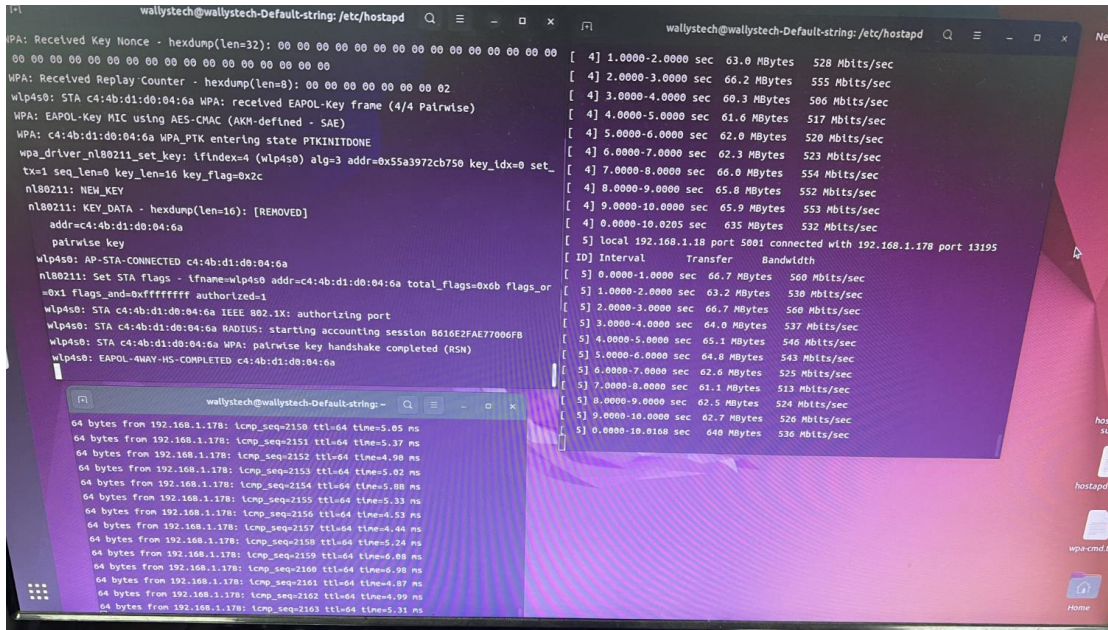
<https://www.wallystech.com/Routerboard/DR3G11-Linux-PCIe-adapter-for-M.2-WiFi-modules-PCIe-adapter-support-AX200NGW.html>




```
wallystech@wallystech-Default-string:~$ uname -a
Linux wallystech-Default-string 5.17.0 #4 SMP PREEMPT Tue Oct 10 20:58:33 CST 2023 x86_64 x86_64 x86_64 GNU/Linux
```

The kernel version is 5.17.0 which integrated ath11k driver

Use this command 'sudo hostapd -dd /etc/hostapd/hostapd.conf' to enable the module under AP mode



The module can work under STA mode as well, and this command need to be run 'sudo wpa_supplicant -Dnl80211 -i wlp4s0 -c wpa.conf'

If you are interested in the product or have any technical questions, feel free to reach out Wallys team

Thanks for watching..