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

▲ 不安全	192.168	.1.1/cgi-bin/luci					07	Gr	Q 🖻
YouTube 💡	地图 📌	Datalines Comput	🧔 EXPAND MEMOR	🄣 Email ID Checker	A People - Apollo	😻 Verifalia - Email v	€ Be	est Emai	il <mark>Verif</mark> ica
		SuperWireless FIRMW/	vRE-2167-202310111639 u	nknown Load: 0.06 0.01 0).01]
		zation Required	assword.						-
	Userna	me		😂 admin					
	Passwo	ord		2					
	5-10-10-10-10-10-10-10-10-10-10-10-10-10-		51614 <u>,</u> 514,514,	A		161628162816	ØR	eset 🛄	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)

WIFI	SuperWireless FIRMWARE-2167-202310111639 unknown Load: 0.99 0.34 0.12 Auto Refresh:	on			[Changes: 0
Status	System Network Logout					aviet.	
Interface	es Wifi Diagnostics Firewall Multi-WAN						
wifi1: M	aster "OpenWrt" wifi2: Master "9074triband" wifi0: Master "OpenWrt"						
Wireles	s Overview						
	Generic Atheros 802.11anacax (wifi0) Channel: 161 (5.805 GH2) Bitrate: 1201 Mbit/s				Scan		Add
	SSID: OpenWrt Mode: Master 8% BSSID: C4:4B:D1:A0:12:89 Encryption: None	8	Disable		Edit		Remove
	Generic Atheros 802.11bgnax (wifi1) Channel: 11 (2.462 GHz) Bitrate: 286 Mbit/s			Q	Scan		Add
	<pre>SSID: OpenWrt Mode: Master 0% BSSID: C4:4B:D1:A0:12:8A Encryption: None</pre>	8	Disable		Edit	×	Remove
2	Generic Atheros 802.11abgnacax (wifi2) Channel: 209 (6.995 GHz) Bitrate: 4803 Mbit/s				Scan		Add
	SSID: 9074triband Mode: Master 0% BSSID: C6:4B:D1:D0:04:67 Encryption: WPA2 PSK (CCMP)	8	Disable		Edit		Remove

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

X	Generic Atheros 802.11abgnacax (wifi2) Channel: 2 (2.417 GHz) Bitrate: 573 Mbit/s			Q	Scan	Add
	SSID: 9074triband Mode: Master 0% BSSID: C6:4B:D1:D0:04:67 Encryption: WPA2 PSK (CCMP)	0	Disable		Edit	Remove

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

R	Generic Atheros 802.11abgnacax (wifi2) Channel: 36 (5.180 GHz) Bitrate: 2401 Mbit/s		Q	Scan	1	Add
	SSID: 9074triband Mode: Master 2% BSSID: C6:4B:D1:D0:04:67 Encryption: WPA2 PSK (CCMP)	Disable		Edit	×	Remove
	Generic Atheros 802.11abgnacax (wifi2) Channel: 209 (6.995 GHz) Bitrate: 2401 Mblt/s	 		Scan		Add

Encryption	WPA3 🗸	
SAE		
SAE PASSWORD	12345678	
SAE PWE		
SAE MFP		

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

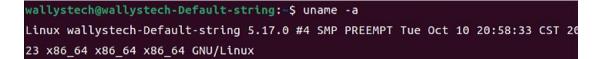
And the 9074-triband module can work under both ap and sta mode

General Setup Wireless Security MAC	Filter Advanced Settings	
ESSID	9074triband	
Mode	Access Point (WDS)	
Guard Interval	Access Point Client Ad-Hoc	
Hide ESSID	Access Point (WDS)	
	Client (WDS) Static WDS	
Back to Overview 🙆 Reset		Save Save Save & Appl

(2) Usage with x86 Platform Ubuntu
 Desktop PC x1 installed Ubuntu 22.04
 DR9074-triband module x1
 DR3G11 adpater x1

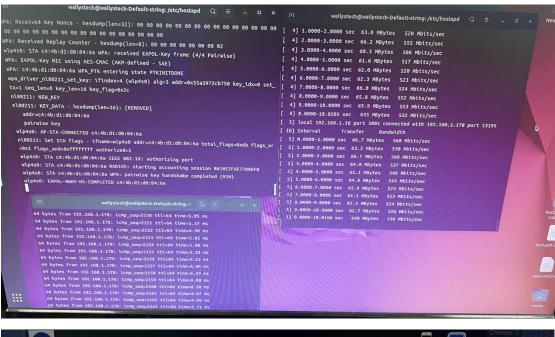
https://www.wallystech.com/Routerboard/DR3G11-Linux-PCIe-adapter-for-M.2-WiFi-modules-P CIe-adapter-support-AX200NGW.html





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



terfaces Wiffi VLANs Diagnostics Firewall Multi-WAN	
vfi1: Master "OpenWrt" wilfi2: Client "APTEST01" wilfi0: Master "OpenWrt"	
lireless Overview	
Generic Atheros 802.11anacax (wilio)	Scan 🐔 Add
SSID: OpenWirt Mode: Master One. Wireless is disabled or not associated	🖉 Enable 🔏 Edit 🛪 Remove
Generic Atheros 802.11bgnax (vill1)	C Scan Add
SSID: OpenWrt Mode: Master ow. Wireless is disabled or not associated	🖉 Enable 🎑 Edit 💌 Remove
Generic Atheros 802.11abgnacax (wifi2) Channet: 165 (6.775 GHz) Bitrate: 4003 Mosis	Scan 📩 Add
SSID: APTEST01 Mode: Client Tow. BSSID: C4:48:D1:D0:06:47 Encryption: WPA2 PSK (CCMP, CKIP)	Disable Edit Remove
Associated Stations	
Device SSID MAC-Address IPv4-Address Noise	Rssi RX Rate TX Rate TxCCQ Up Time

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 ..