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Wallys Communications (Suzhou) Co., Ltd

IPQ60xx UI setting

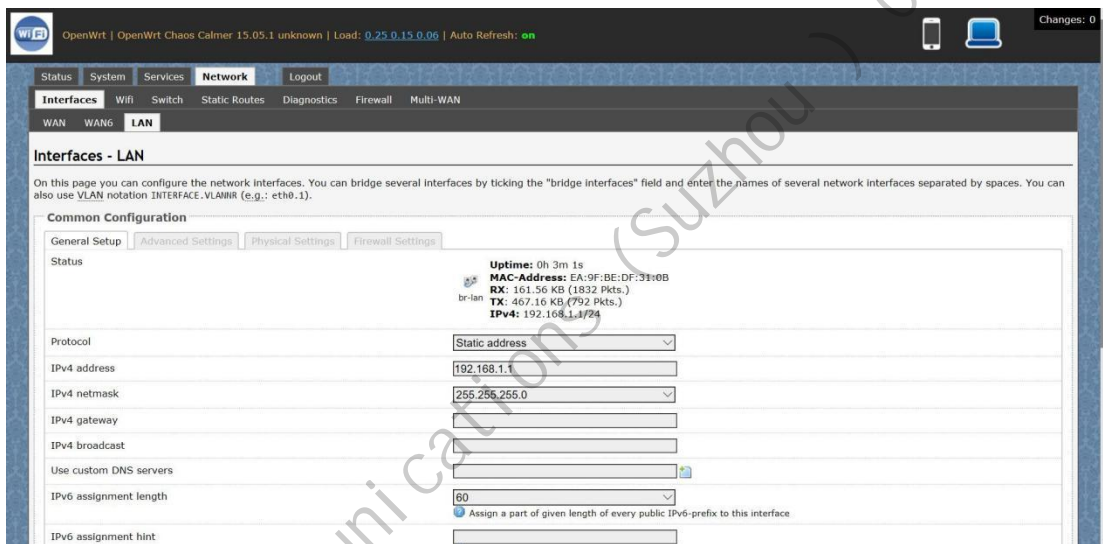
1. input the IP: 192.168.1.1 and login;
2. Input the username: admin; password: password, then press the button "Login",

Authorization Required

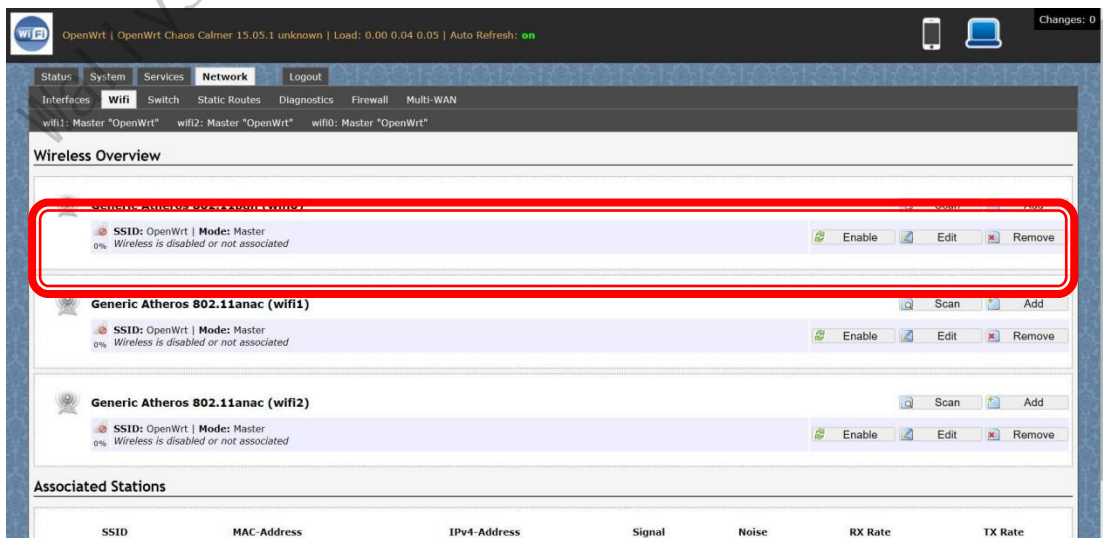
Please enter your username and password.

Username	<input type="text" value="admin"/>
Password	<input type="password" value="password"/>

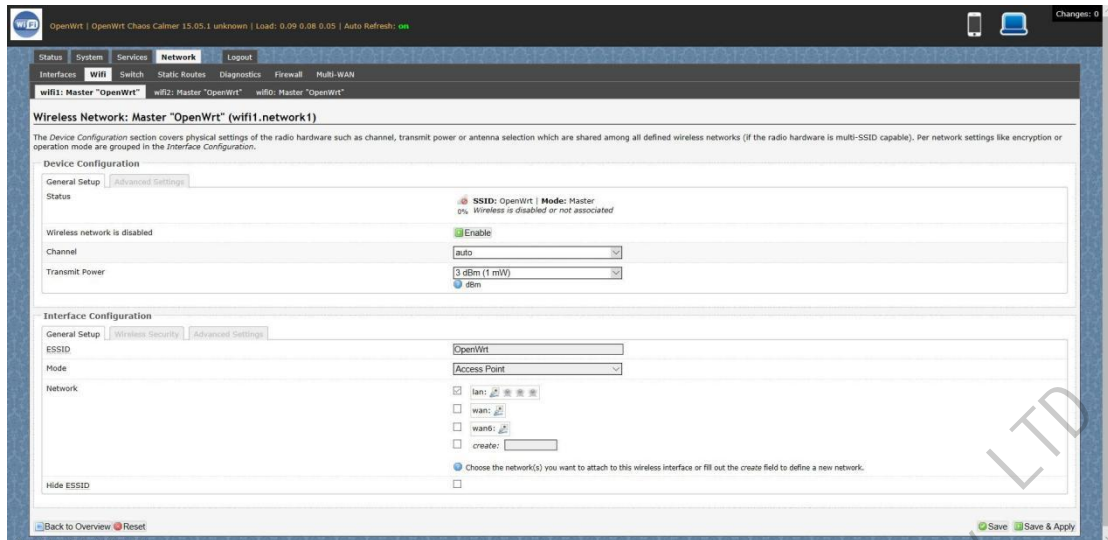
3. network setting
 - IP Setting: setting IP in the path "network->Interfaces->LAN->IPV4 address"
 - DHCP setting: DHCP and other protocol setting in the path
 - network->Interfaces->LAN->protocol"



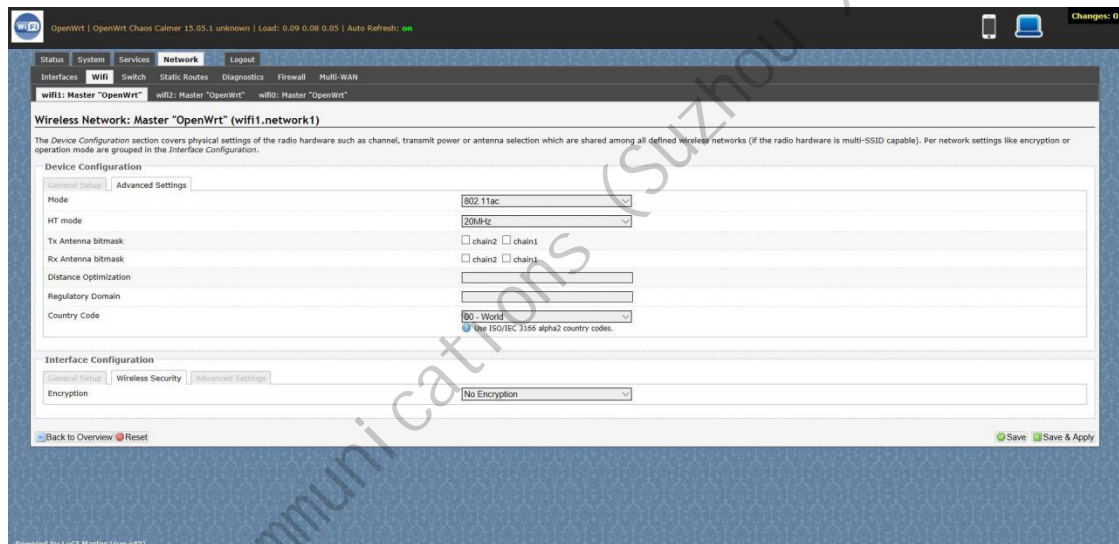
4. wireless setting
 - login the path network->Interfaces->WIFI, then choose one wifi, we select the red marked as example, click the button 'Edit'



- The detail information show in the picture as below: Channel:for channel select;
Transmit Power:signal chain power setting; ESSID:for ID
- Mode:it support 4 mode AP,AP(WDS),client,client(WDS) Wireless Security:for Encryption setting



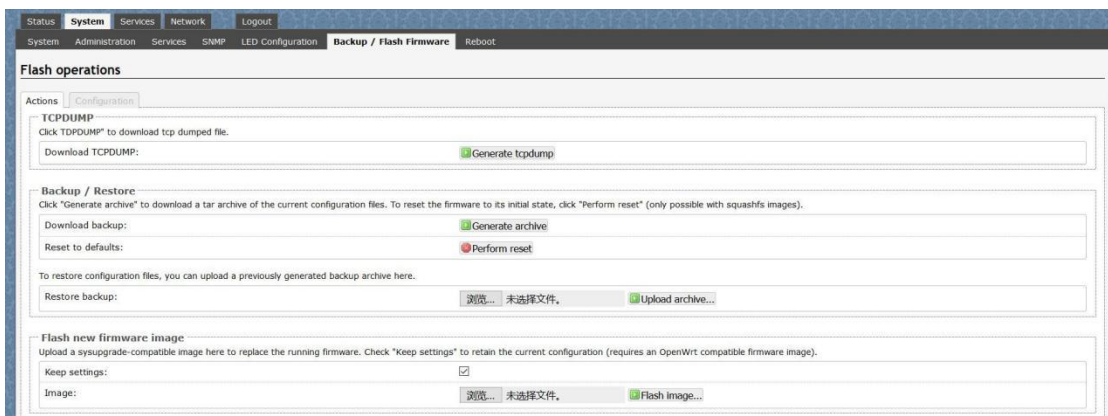
IN Advance setting you can select which chain do you need,which BW do you need and so on



In the end ,you need click the button “Save & Apply”, and wait for 2 minutes, then you can enjoy it.

5. Backup archive

Login System->Backup/Flash Firmware;
Then click the button”Generate archive”;
Then download the archive



6.update new imag

Login System->Backup/Flash Firmware;

Then click the button “浏览”, choose your image,

Then click the button “flash image”

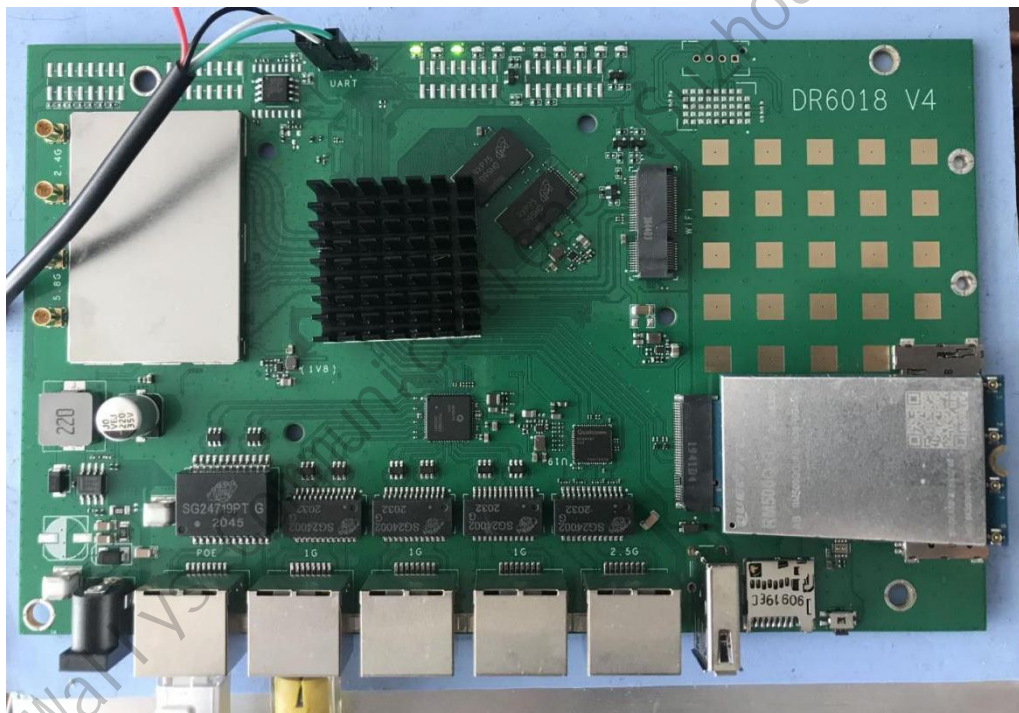
Then click the button “Proceed”, warning don't power off, wait for about three minutes, then the system will reboot automatic.then login again,you can enjoy it.



DR6010 V04 UART configuration

1.Induction

That is show how to use the Uart for DR6018 V4



2.Device connect

Step 1:connect the cable to the DR6018 V4

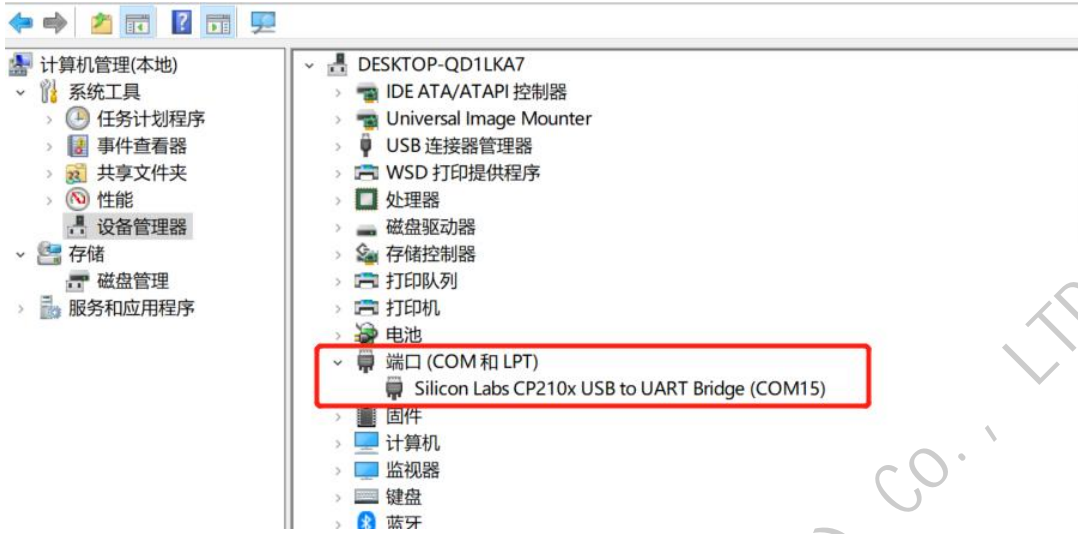
As the picture as above,the sequence of the signal in the UART connector:GND,TX,RX,VCC,

And we need use GND connect black cable,TX connect to white cable,RX connect to Green cable, VCC don't use.

Step 2:Check the Com number on the PC

Connect the console board to the PC with USB connector,

Then check the com number on the PC,the com number on the test pc is Com15



Step 3 login with the software

You can use putty ,Xshell or some others,enjoy it

```
BusyBox v1.30.1 () built-in shell (ash)

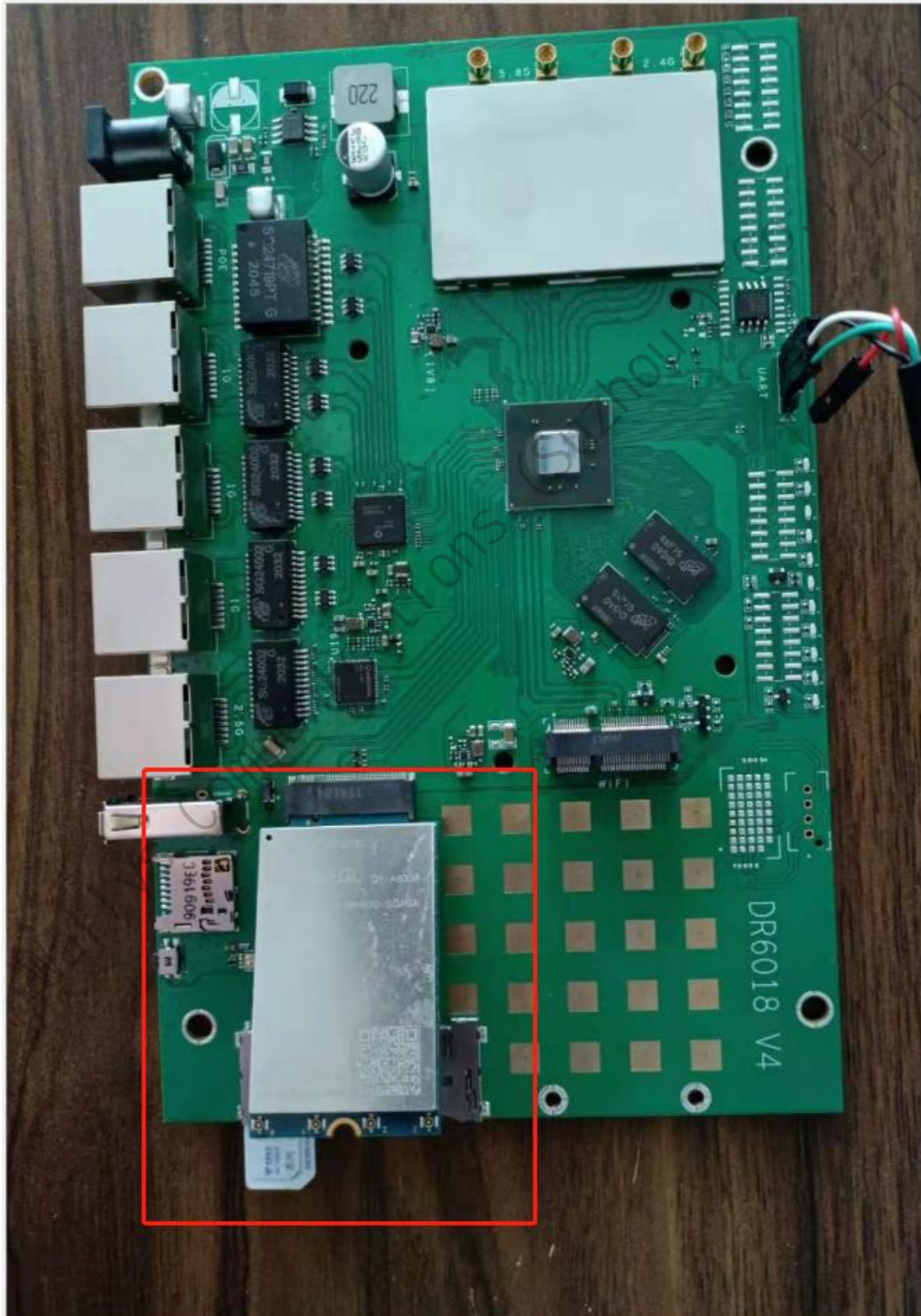
MM      NM      MMMMMMMM      M      M
$MMMMM      MMMMM      MMMMMMMMMMMM      MM      MM
MMMMMMMM      MM      MMMM.      MMMMM:MMMMMM:      MM      MMMM
MMMM=      MMMMM      MM      MMMM      MMMMM      MMMM      MMMM      MMMM'
MMMM=      MMMMM      MMMM      MM      MMMMM      MMMM      MMMM      MMMMMMMM
MMMM=      MMMM      MMMMM      MMMMM      MMMMM      MMMM      MMMMMMMMM
MMMM=      MMMM      MMMMMMM      MMMMM      MMMM      MMMM      MMMMMMMMM
MMMM=      MMMM      MMMMM,      NMMMMMMMMM      MMMM      MMMM      MMMMMMMMMMMM
MMMM=      MMMM      MMMMMM      MMMMMMMMM      MMMM      MMMM      MMMM      MMMMM
MMMM=      MMMM      MM      MMMM      MMMM      MMMM      MMMM      MMMM
MMMM$,      ,MMMMM      MMMMM      MMMM      MM      MMMM      MMMMM      MMMM
MMMMMM:      MMMMMMM      M      MMMMMMMMMMMM      MMMMMMM      MMMMMMM
MMMMM      MMMMM      M      MMMMMMMMM      MMMM      MMMM
MMMM      M      MMMMMMM      M      M

-----
For those about to rock... (Chaos Calmer, unknown)
-----

root@OpenWrt:/#
root@OpenWrt:/#
root@OpenWrt:/#
root@OpenWrt:/#
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root@OpenWrt:/#
root@OpenWrt:/#
root@OpenWrt:/#
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root@OpenWrt:/#
```

IPQ60xx 5G card setting

1. Place the quectel 5G module and SIM card correctly in the board as below picture.



2. Connect the board by UART localhost and login : root , Password: asdf1234

```
[ 50.011700]
[ 50.020036] wlan: [3555:I:ANY] oi_ath_vap_set_param: 1556: Setting SGI value: 1
[ 50.031593] wlan: [3555:I:ANY] oi_ath_vap_set_param: 2609: VDEV params:HE su_bfee:1|su_bfer:1|mu_bfee:0|mu_bfer:1|di_muofdma:1|ul_muofdma:1|ul_mumimo:0|di_muofdma_b
[ 50.038395] wlan: [3555:I:ANY] oi_ath_vap_set_param: 2622: he_bf_ccp=0x3b
[ 50.044863] br-lan: port 5(ath0) entered forwarding state
[ 50.060950] wlan: [3555:I:ANY] oi_ath_vap_set_param: 2637: VDEV params: AC/VHT sounding mode:HE|SU/MU sounding mode:SU|Trig/Non-Trig sounding mode:Non-Triggered
[ 50.066086] wlan: [3555:I:ANY] MBO Initialized
[ 50.090081] wlan: [3555:I:ANY] OCE Initialized
[ 50.094719] wlan: [3555:I:ANY] osif_create_vap_complete: 10120: TX Checksum:1|SG:1|TSO:1|LRO:0
[ 50.090782] wlan: [3555:I:ANY] VAP device ath1 created osifp: (b1dab500) os_if: (b1d14000)
[ 50.714083] 8021q: adding VLAN 0 to HW filter on device ath1
[ 50.715817] device ath1 entered promiscuous mode
[ 50.718958] br-lan: port 6(ath1) entered forwarding state
[ 50.723463] br-lan: port 6(ath1) entered forwarding state
[ 50.765568] wlan: [1753:I:ANY] wlan_cfg80211_do_acs: 4440: vap-1(ath1):ACS Params
[ 50.765616] wlan: [1753:I:ANY] wlan_cfg80211_do_acs: 4443: ht_enabled:1|ht40_enabled:0|vht_enabled:1|hw_mode:23|chwidth:20|
[ 50.772052] wlan: [1753:I:ANY] ieee80211_autoselect_infra_bss_channel: 4136: ACS started: vap:0xb1d14000
[ 51.139923] coresight-funnel: 6130000.funnel: FUNNEL inport 5 enabled
[ 51.139122] coresight-funnel: 6041000.funnel: FUNNEL inport 6 enabled
[ 51.145357] coresight-tmc: 6048000.tmc: TMC enabled
[ 51.150693] coresight-replicator-qcom: 6046000.replicator: REPLICATOR enabled
[ 51.155426] coresight-tmc: 6047000.tmc: TMC enabled
[ 51.162486] coresight-funnel: 6041000.funnel: FUNNEL inport 7 enabled
[ 51.167259] coresight-stm: 6002000.stm: STM tracing enabled
***** QDSS Tracing Configuration completed *****
***** Starting QDSS for Integrated *****
[ 52.714639] br-lan: port 6(ath1) entered forwarding state

OpenWrt login: [ 54.162425] wlan: [1092:I:ANY] vap-1(ath1): ACS result PCH 11 freq 2462, SCH 0 freq 0, hw_mode 1 chwidth 20, vht_seg0 11 freq 2462, vht_seg1 0 freq 0
[ 54.162503] wlan: [1092:I:ANY] ieee80211_acs_scan_evhandler: 3870: lock held duration: 0(ms)
[ 54.164123] wlan: [1753:I:ANY] DES SSID SET=OpenWrt
[ 54.164137] wlan: [1753:I:ANY] desired hw mode: 23
[ 54.164235] wlan: [1753:I:ANY] ieee80211_ucfg_set_freq_internal: 575:
[ 54.164235] Channel is configured already!!
[ 54.175162] wlan: [0:I:CMN_MLME] vdev[1] ieee chan:11 freq:2462
[ 54.175507] wlan: [0:I:ANY] vdev[1]: Mgt Rate:1000 (kbps)
[ 54.175549] wlan: [0:I:ANY] vdev[1]: Mgt Rate:1000 (kbps)

OpenWrt login: [ 55.803954] wlan: [1092:I:ANY] vap-0(ath0): ACS result PCH 44 freq 5220, SCH 36 freq 5180, hw_mode 2 chwidth 80, vht_seg0 42 freq 5210, vht_seg1 0 fr
[ 55.804034] wlan: [1092:I:ANY] ieee80211_acs_scan_evhandler: 3870: lock held duration: 1(ms)
[ 55.805649] wlan: [1753:I:ANY] DES SSID SET=OpenWrt
[ 55.805662] wlan: [1753:I:ANY] desired hw mode: 30
[ 55.805767] wlan: [1753:I:ANY] ieee80211_ucfg_set_freq_internal: 575:
[ 55.805767] Channel is configured already!!
[ 55.817782] wlan: [0:I:CMN_MLME] vdev[0] ieee chan:44 freq:5220
[ 55.818157] wlan: [0:I:ANY] vdev[0]: Mgt Rate:6000 (kbps)
[ 55.818200] wlan: [0:I:ANY] vdev[0]: Mgt Rate:6000 (kbps)

OpenWrt login:
OpenWrt login:
OpenWrt login:
OpenWrt login:
OpenWrt login: root
Password: 
```

3. check whether find the 5G module ,

Print the command `ifconfig -a`

if we can see `usb0` which indicate that the new 5G/LTE module is detected.

```

UP LOOPBACK RUNNING MTU:65536 Metric:1
RX packets:247 errors:0 dropped:0 overruns:0 frame:0
TX packets:247 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1
RX bytes:19676 (19.2 KiB) TX bytes:19676 (19.2 KiB)

miireg Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
[NO FLAGS] MTU:0 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1
RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

sit0 Link encap:IPv6-in-IPv4
NOARP MTU:1480 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1
RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

soc0 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
[NO FLAGS] MTU:0 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1
RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

teql0 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
NOARP MTU:1500 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:100
RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

usb0 Link encap:Ethernet HWaddr 02:50:F4:00:00:00
NOARP MTU:1500 Metric:1
RX packets:2 errors:0 dropped:0 overruns:0 frame:0
TX packets:2 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:612 (612.0 B) TX bytes:672 (672.0 B)

wifi0 Link encap:UNSPEC HWaddr 00-03-7F-12-B9-63-00-37-00-00-00-00-00-00-00-00-00
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:636 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:2699
RX bytes:0 (0.0 B) TX bytes:397032 (387.7 KiB)

wifi1 Link encap:UNSPEC HWaddr 00-03-7F-12-FD-47-00-37-00-00-00-00-00-00-00-00-00
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:636 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:2699
RX bytes:0 (0.0 B) TX bytes:397032 (387.7 KiB)

```

4. Check whether the SIM card can work.

Print the command: `quectel-CM`, if it shows as below and we also can see that `SIMstatus: SIM-Ready`, it is ok.


```

root@OpenWrt:~# quectel-CM
[03-02_09:31:36:686] Quectel_QConnectManager_Linux_V1.6.0.15
[03-02_09:31:36:687] Find /sys/bus/usb/devices/1-1 idVendor=0x2c7c idProduct=0x800, bus=0x001, dev=0
[03-02_09:31:36:691] Auto find qmichannel = /dev/qcqmio
[03-02_09:31:36:691] Auto find usbnet_adapter = usb0
[03-02_09:31:36:691] netcard driver = GobiNet, driver version = V1.6.2.9
[03-02_09:31:36:691] qmap_mode = 1, qmap_version = 9, qmap_size = 31744, muxid = 0x81, qmap_netcard =
[03-02_09:31:36:691] Modem works in QMI mode
[03-02_09:31:36:703] Get clientWDS = 7
[03-02_09:31:36:735] Get clientDMS = 8
[03-02_09:31:36:767] Get clientNAS = 9
[03-02_09:31:36:798] Get clientUIM = 10
[03-02_09:31:36:831] requestBaseBandVersion RM500QGLABR01A01M4G
[03-02_09:31:36:959] requestGetSIMStatus SIMStatus: SIM_READY
[03-02_09:31:36:991] requestGetProfile[1] Ccnet//70
[03-02_09:31:37:022] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN
[03-02_09:31:37:054] requestQueryDataCall IPv4ConnectionStatus: DISCONNECTED
[03-02_09:31:37:055] ifconfig usb0 0.0.0.0
[ 1007.039176] IPv6: ADDRCONF(NETDEV_UP): usb0: link is not ready
[03-02_09:31:37:064] ifconfig usb0 down
[03-02_09:31:37:118] requestSetupDataCall WdsConnectionIPv4Handle: 0xedf84840
[ 1007.222546] net usb0: link_state 0x0 -> 0x1
[03-02_09:31:37:247] ifconfig usb0 up
[03-02_09:31:37:259] you are use OpenWrt?
[03-02_09:31:37:260] should not calling udhcpc manually?
[03-02_09:31:37:262] should modify /etc/config/network as below?
[03-02_09:31:37:269] config interface wan
[03-02_09:31:37:269]     option ifname    usb0
[03-02_09:31:37:269]     option proto    dhcp
[03-02_09:31:37:269] should use "/sbin/ifstaus wan" to check usb0 's status?
[03-02_09:31:37:269] busybox udhcpc -f -n -q -t 5 -i usb0
udhcpc: started, v1.30.1
udhcpc: sending discover
udhcpc: sending select for 10.101.194.39
udhcpc: lease of 10.101.194.39 obtained, lease time 7200
[03-02_09:31:37:432] udhcpc: ifconfig usb0 10.101.194.39 netmask 255.255.255.240 broadcast +
[03-02_09:31:37:444] udhcpc: setting default routers: 10.101.194.40
[03-02_09:31:41:087] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN
[03-02_09:31:41:119] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN
[03-02_09:31:41:151] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN
[03-02_09:31:41:182] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN
[03-02_09:31:47:007] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN
[03-02_09:31:47:039] requestRegistrationState2 MCC: 460, MNC: 11, PS: Attached, DataCap: UNKNOWN

```

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