

FCG

802.11n 2.4G Gateway

Installation Guide



WARNING!

Do

- Plug either DC-IN jack or PoE-IN port to AC/DC adapter for PoE output at WAN port.
- Use LAN port for Wired Internet Access as its PoE output function is default "OFF".

Don't

- Don't connect both DC-IN jack and PoE-IN port to AC/DC adapters simultaneously.
- 4) Don't connect LAN port to PC for Wired Internet Access if its PoE output function is requested to remotely "ON" by service Engineer.

See the ports and connectors in Appendix A.

Safety Warnings

- Do not expose the device to corrosive liquids.
- Do not install, use or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Do not open the device. Only qualified service personnel should service or disassemble the device.
- Make sure to connect the cables to the correct ports.

SETUP REQUIREMENTS

- A computer running Windows 10, Linux (procedures for other OS's are similar)
- Cat 5/6 cable
- AC Power Source (110VAC or 230VAC) for 12V DC adapter

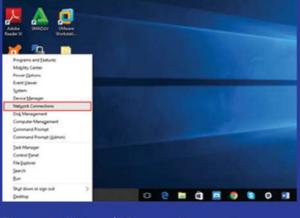
INSTALLATION STEPS

STEP 1 : CONNECT FCG FOR POWER AND DATA COMMUNICATION

- 1(a) Connect 12V DC adapter to AC power source (110VAC or 230VAC) then DC jack is plugged into on-board male DC jack.
- 1(b) Connect LAN port of FCG to LAN port of PC using Cat 5/6 Ethernet cable.
- 1(c) Verify that the LED on the external enclosure is blinking GREEN.

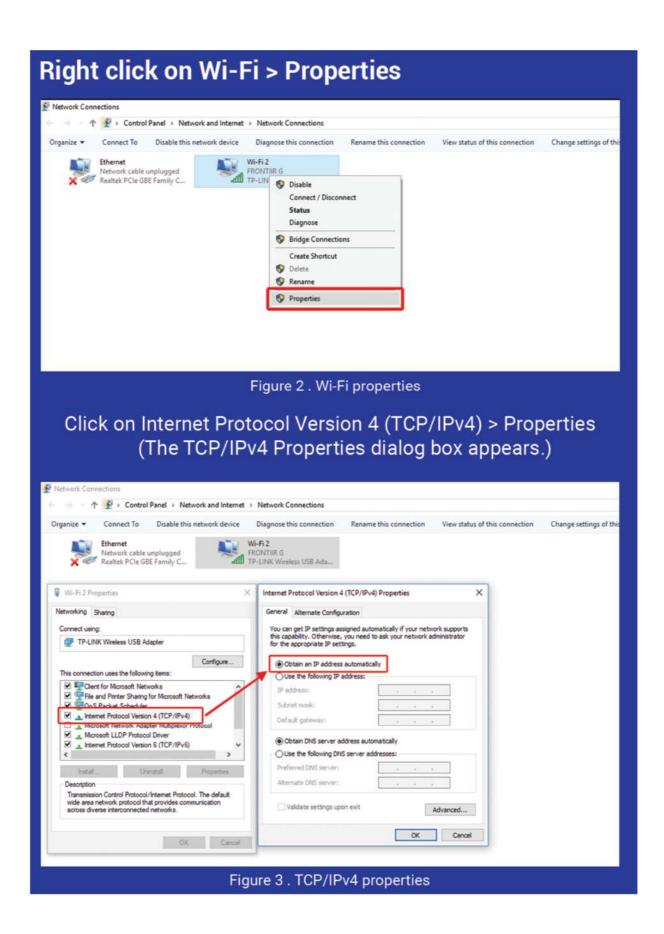
STEP 2 : PREPARE YOUR COMPUTER FOR FCG SETUP

2(a) On your Windows 10 computer, configure TCP/IP Properties of the Wireless Connection on your computer as follows:



(To check the IP address of the computer, click on the Windows Key and Press X at the same time then click on the menus: Network Connections)

Figure 1 . Network Connections menu



| information. IP address: 192.168.99.X (X Subnet mask: 255.255.255.0 | address" 8.99.1, input your IP and DNS |
|---|---|
| Internet Protocol Version 4 (TCP/IPv4) Properties | Internet Protocol Version 4 (TCP/IPv4) Properties X |
| General Alternate Configuration | General |
| You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. | You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. |
| O Use the following IP address: | Use the following IP address: |
| IP address: | IP address: 192 . 168 . 99 . 2 |
| Subnet mask: | Subnet mask: 255 . 255 . 0 |
| Default gateway: | Default gateway: |
| Obtain DNS server address automatically Use the following DNS server addresses: Preferred DNS server: Alternate DNS server: | Obtain DNS server address automatically Use the following DNS server addresses: Preferred DNS server: Alternate DNS server: |
| Validate settings upon exit Advanced | Validate settings upon exit Advanced |
| OK Cancel | OK Cancel |

STEP 3 : PLACE YOUR FCG IN YOUR SITE

- 3(a) Allocate FCG to a place where DC power access. Please note that FCG is for indoor use only.
- 3(b) Connect the FCG DC power source.
- 3(c) Connect FCG WAN port to PoE input port of 5G radio outdoor device.
- 3(d) STATUS LED on the external enclosure is steady GREEN.

STEP 4 : ACCESS INTERNET BY YOUR DEVICE WI-FI

4(a) CPE Service ID Card



Figure 5 . Sample CPE Service ID Card

4(b) Click on Wi-Fi icon, then click on "Network settings"

| Change sett | E) Airplane mode | (rji) Mobile e hotspot |
|--------------|--|---------------------------------|
| | 宁 | (l) |
| unange sett | | |
| | & Internet setti ings, such as maki | ngs ng a connection metered. |
| / PRO | TOTYPE | |
| Gen Secu | | |
| - 500 | NTIIR G | |
| Sect | 4A_SSID red | |

| | lidden Network" and key in SSID | |
|--|---|-----|
| Settings NETWORK & INTERNET | | Fin |
| Wi-Fi | | |
| Airplane mode | QANEW_MyanmarNet | |
| Data usage | PROTOTYPE | |
| VPN | Hidden Network | |
| Dial-up | Enter the name (SSID) for the network | |
| thernet | V20000 × | |
| Proxy | Next Cancel | |
| | Advanced options | |
| | Manage Wi-Fi settings | |
| | B L C L M L | |
| | Related settings | |
| | Change adapter options | |
| | Change advanced sharing options Network and Sharing Center | |
| | Hara Casar | |
| Fi | igure 7 . Entering SSID as in CPE Service ID Card | |
| 4(d) Enter the n | etwork security key | |
| ← Settings | | |
| NETWORK & INTERNET | | Fin |
| | PROVISION_PPPOE | |
| /i-Fi | indiano, orrec | |
| | | |
| irplane mode | OpenWrt5G | |
| irplane mode ata usage | | |
| irplane mode ata usage PN | OpenWrt5G Hidden Network Enter the network security key | |
| irplane mode ata usage PN ial-up | OpenWrt5G Hidden Network | |
| irplane mode ata usage PN ial-up thernet | OpenWrt5G Hidden Network Enter the network security key | |
| irplane mode ata usage PN ial-up thernet | OpenWrt5G Hidden Network Enter the network security key | |
| Nirplane mode Nata usage /PN Nial-up thernet | OpenWrt5G Hidden Network Enter the network security key Share network with my contacts | |
| WI-FI Airplane mode Data usage /PN Dial-up Ithernet | OpenWrt5G Widden Network Enter the network security key Share network with my contacts Next Cancel | |

Figure 8 . Entering security key as in CPE Service ID Card

Change adapter options Change advanced sharing options

4(e) Click "No" if you do not want to allow your PC to be discoverable by other PCs and devices on this network.

| ← Settings | | | | |
|--|--|--|--|--|
| OR NETWORK & INTERNET | | | | |
| Wi-Fi | PROVISION_PPPOE | | | |
| Airplane mode | OpenWrt5G | | | |
| Data usage | 116 | | | |
| VPN | Hidden Network | | | |
| Dial-up | Do you want to allow your PC to be discoverable by other PCs and devices on this network? | | | |
| Ethernet | We recommend allowing this on your home and work networks, but not public ones. | | | |
| Proxy | Yes No | | | |
| | Advanced options | | | |
| | Manage Wi-Fi settings | | | |
| | | | | |
| Figure 9 . Choice for discoverable or non-discoverable | | | | |
| 4(f) Now SSID is connected | | | | |
| ← Settings | | | | |
| K NETWORK & INTERNET | | | | |
| Wi-Fi | Wi-Fi | | | |
| Airplane mode | On | | | |
| Data usage | | | | |
| VPN | Connected | | | |

Your Wi-Fi is connected to SSID and Ready to use Now!

Figure 10 . SSID connection status

FRONTIIR G

Myanmar Net

QA3_S_SSID_CPE

QANEW_MyanmarNet

FRONTIIR

(a

(a

Dial-up

Ethernet

Proxy

Appendix A.



DC-IN

This is a 12VDC input port. Any 12V, 18W adapters are useable.

PoE-IN

This is a 24VDC PoE input port. Any PoE injectors with + (4, 5) pins and - (7, 8) pins are useable.

WAN

This is the WAN port. This Ethernet port will connect with its uplink 5G radio.

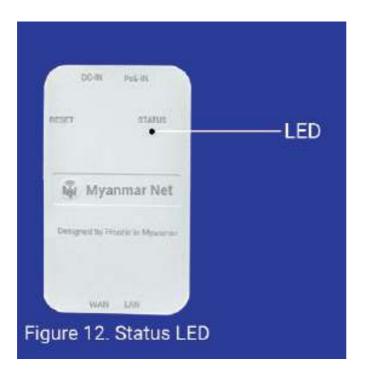
LAN

This is the LAN port. This Ethernet port can be used for wired internet access and configured as POE 24V output for the extended Routers with PoE input port.

RESET

Brief press = Reboot the FCG. >9 sec = Factory reset the FCG.

Appendix B.



| LED Output | Condition |
|--------------------|------------------------------------|
| Green | Power ON, LAN PoE-OUT is disabled. |
| Yellow | Power ON, LAN PoE-OUT is enabled. |
| Red | Power ON, Booting (Uboot) |
| Solid | WAN DHCP is acquired. |
| Blink 1 per second | WAN waiting to acquire DHCP |
| Off | Power Off |

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Non-modification Statement:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.