



QUANTUM NETWORKS QN-I-210-PLUS Access Point User Guide

[Home](#) » [QUANTUM NETWORKS](#) » **QUANTUM NETWORKS QN-I-210-PLUS Access Point User Guide** 



Quick Setup Guide
Model: QN-I-210-PLUS

Contents

- [1 QN-I-210-PLUS Access Point](#)
- [2 Glossary](#)
- [3 Icon description](#)
- [4 Before you begin](#)
- [5 Package contents](#)
- [6 Prerequisites](#)
- [7 Network requisites](#)
- [8 Connect Access Point](#)
- [9 Step 1 – Create new account on Quantum Rudder](#)
- [10 Step 2 – Basic setup](#)
- [11 Step 3 – Setting up device IP address](#)
- [12 Step 4 – Set the management mode](#)
- [13 Step 5 – Access Point quick setup in Rudder Mode](#)
- [14 Step 6 – Access Point quick setup in standalone mode](#)
- [15 Reset Access Point to factory defaults](#)
- [16 Access Point default login detail](#)
- [17 Documents / Resources](#)
 - [17.1 References](#)

QN-I-210-PLUS Access Point

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This Quick Setup Guide provides step-by-step instructions on how to set up Quantum Networks Access Point. After completing the steps described in this Guide, you will be able to install the Access Point (AP) on-site and provide wireless network access to users.

Glossary

Feature	Description
Management Mode	Standalone: In this mode, each device is configured and managed individually. It can be useful in scenarios with few devices or sites with limited Internet access and basic features. Cloud: In this mode, devices are configured and managed from a central controller hosted in the cloud. It offers many more sets of features as compared to the Standalone mode.
Operation Mode	Bridge: In this mode, the device connects to a network over an ethernet cable and extends the coverage over wireless. Router: In this mode, the device connects to Internet Service Provider directly using DHCP / Static IP / PPPoE protocols and shares Internet access over a wired or wireless network to users.
Quantum Rudder	Quantum Rudder is a cloud-hosted controller which can be used to configure, manage & monitor devices associated with it. It can be accessed from https://rudder.qntmnet.com

Icon description

Icon on GUI	Description
	Click to get the option for the firmware update.
	Click to get back to the home page.
	Click to check the documentation.
	Click to check device information.

Before you begin

Your Quantum Networks Access Point can work in “Standalone Mode” or can be managed by “Rudder”.

Package contents

- Access Point.

- Mounting kit

Prerequisites

- Internet access.
- Desktop / Laptop / Handheld device.
- 802.3af / 802.3at PoE Switch / PoE Injector.
- 12V, 2A DC power adapter.

Network requisites

The listed ports must be opened or allowed in the network firewall.

- TCP: 80, 443, 2232, 1883.
- UDP: 123, 1812, 1813.
- Allow rudder.qntmnet.com and reports.qntmnet.com in the destination field.

Connect Access Point

- After unpacking Access Point, connect it to an Internet source.
- Plug-in Ethernet cable of Access Point.
- Power on Access Point by using 802.3af / 802.3at PoE Switch / PoE Injector.

Note: Access Point must have Internet access during initial setup for the first time to activate the device, warranty and support.

Step 1 – Create new account on Quantum Rudder

- Browse <https://rudder.qntmnet.com>.
- Click “Create New Account” to sign up for a new account.

The image shows a web-based registration form for Quantum Rudder. At the top, the logo "QUANTUM RUDDER" is displayed in blue, with "Network and Services Controller" written below it. A "Sign up" link with a lock icon is centered. The form fields are arranged in two columns. The left column contains labels: "Administrator", "Email", "Phone", "Country", "Timezone", "Password", and "Confirm Password". The right column contains input fields: "First Name" and "Last Name" (split), "Email", a phone field with an Indian flag icon and a "phone" placeholder, a "Country" dropdown menu showing "India", a "Timezone" dropdown menu showing "Asia/Kolkata(GMT+5:30)", a "Password" field with masked characters and a toggle icon, and a "Confirm Password" field with a toggle icon. A large blue "Register" button is at the bottom left, and a "Login" link is at the bottom right.

QUANTUM
RUDDER[®]
Network and Services Controller

 [Sign up](#)

Administrator

First Name

Last Name

Email

Phone

India phone

Country

India

Timezone

Asia/Kolkata(GMT+5:30)

Password

Confirm Password

Confirm Password

Register

[Login](#)

Figure 1

- Follow the steps as guided on the screen for Registration.
- Verify Quantum Rudder account from registered email id. (you will get)
- Once the account gets validated, it turns the page to “Add License Key” (User will get the license key from respective (Partner / Resource))
- Account on Quantum Rudder (Quantum Networks Cloud Controller) is now ready to use.

Step 2 – Basic setup

- Connect the WAN port of the Access Point to the network with Internet access.
- You should see a new wireless network with SSID QN_XX:XX (where XX:XX are the last four digits of Access Point MAC Address).
- Connect to QN_XX:XX SSID and browse Access Point’s default IP “169.254.1.1”.

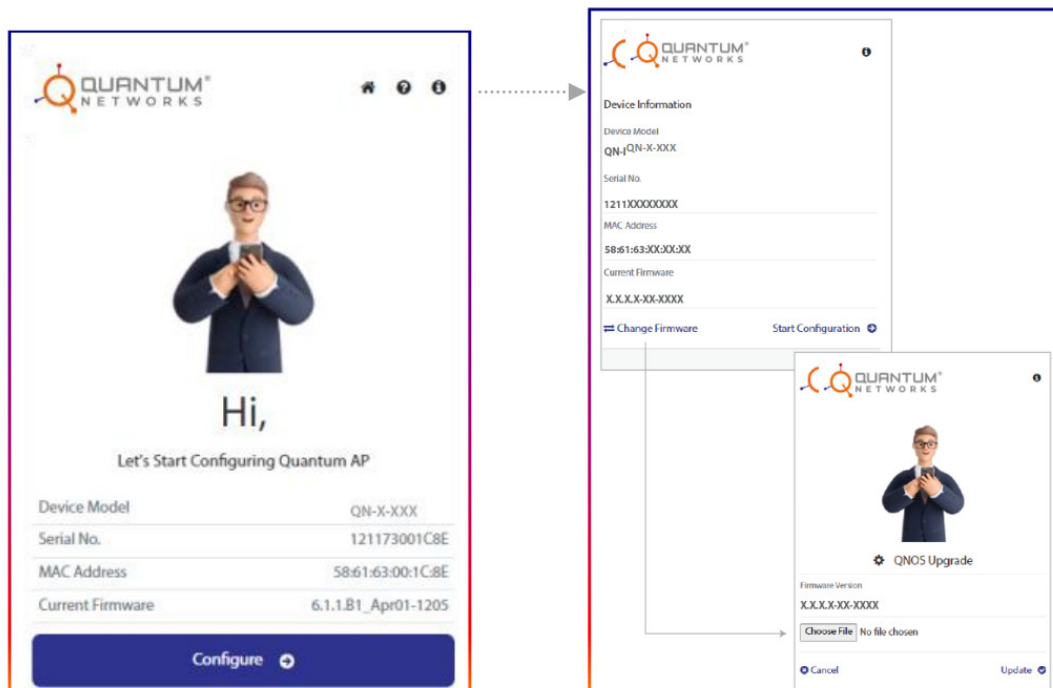



Figure 2

Let's start the configuration.

On the configuration start page, it will display,

- Device model number
- Serial number
- MAC address
- Current firmware

Note:

- Click  button to get the option to “change the firmware” if required.
- Click Change Firmware to update firmware if required. Select the firmware file from the respective location and update it.

Step 3 – Setting up device IP address

Click “Configure” and set the device IP address by selecting the required options.

- Connectivity Mode – Select the connectivity mode.
- Protocol – DHCP, Static or PPPoE
- Interface – Select interface
- VLAN Assignment- Enable parameter. Enter VLAN ID and click “Fetch IP Address” to get the respective IP in case of VLAN setup is required.

Quantum Networks

Device IP Address

Connectivity Mode: Ethernet

Protocol: DHCP

Interface: eth0

VLAN Assignment: ☒ 1 [Fetch IP Address](#)

IP: 192.168.7.40

Subnet: 255.255.255.0

Gateway: 192.168.7.1

Primary DNS: 192.168.7.4

Secondary DNS: 4.2.2.2

[Back](#) [Proceed](#)

Note: As per the Access Point specifications -Connectivity Mode, Protocol and Interface options will come.
Select the options as per the requirement.

Figure 3

Click "Proceed" to apply configuration and turn to the next page.

Step 4 – Set the management mode

Management Mode

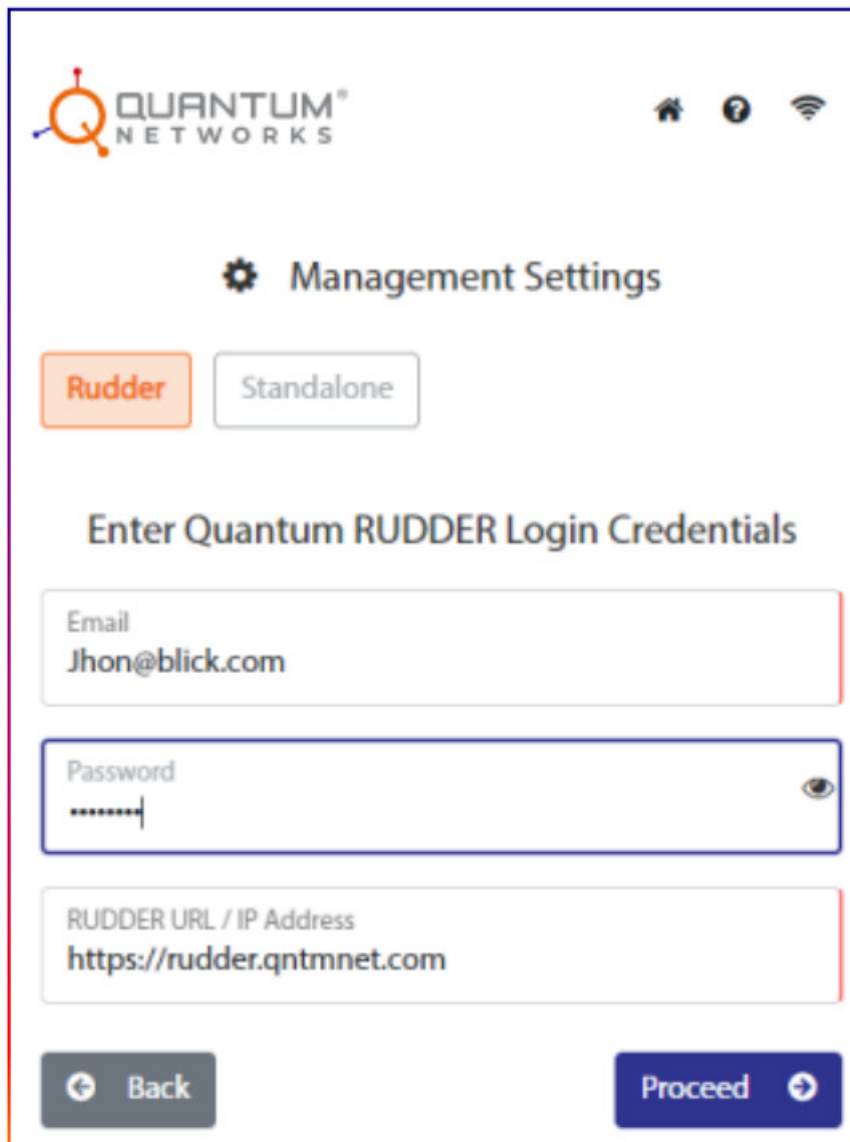
Quantum Networks Access Point can be configured in two modes:

Rudder (on cloud / on-premise)

Centralized management of Access Points using Quantum Rudder

Standalone

Independent management of each Access Point



The image shows a web interface for Quantum Networks. At the top left is the Quantum Networks logo. At the top right are three icons: a home icon, a question mark icon, and a Wi-Fi icon. Below the logo is a gear icon followed by the text "Management Settings". There are two buttons: "Rudder" (highlighted in orange) and "Standalone" (in a light gray box). Below these buttons is the heading "Enter Quantum RUDDER Login Credentials". There are three input fields: "Email" with the value "Jhon@blick.com", "Password" with masked characters "*****" and an eye icon to toggle visibility, and "RUDDER URL / IP Address" with the value "https://rudder.qntmnet.com". At the bottom are two buttons: "Back" (with a left arrow icon) and "Proceed" (with a right arrow icon).

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Management Settings

Rudder Standalone

Enter Quantum RUDDER Login Credentials

Email
Jhon@blick.com

Password

RUDDER URL / IP Address
https://rudder.qntmnet.com

Back Proceed

Figure 4

Step 5 – Access Point quick setup in Rudder Mode

- Select “Management Mode” as “Rudder”, enter Quantum Rudder login credentials and click “Proceed”.

Quantum Networks logo and navigation icons (Home, Help, Wi-Fi) are at the top.

Management Settings

Buttons: **Rudder** (selected), Standalone

Enter Quantum RUDDER Login Credentials

Email: Jhon@blick.com

Password: [masked]

RUDDER URL / IP Address: https://rudder.qntmnet.com

Buttons: Back, Proceed

In the case of on-premise RUDDER, mention the local server IP Address/URL assigned to RUDDER, here.

Figure 5

- It will verify the credentials, and turn to a next page.

Quantum Networks logo and navigation icons (Home, Help, Wi-Fi) are at the top.

Illustration of a man in a suit holding a smartphone.

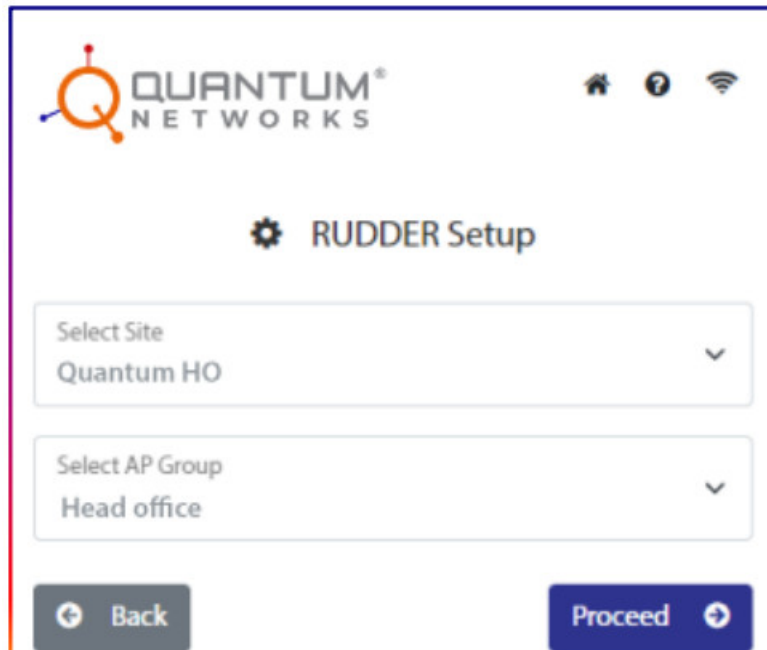
QNOS Upgrade

Current QNOS Version	X.X.X.XX.XXXX
Latest QNOS Version	X.X.X.XX

Buttons: Download & Upgrade, Upgrade Manually, Skip Upgrade

Figure 6

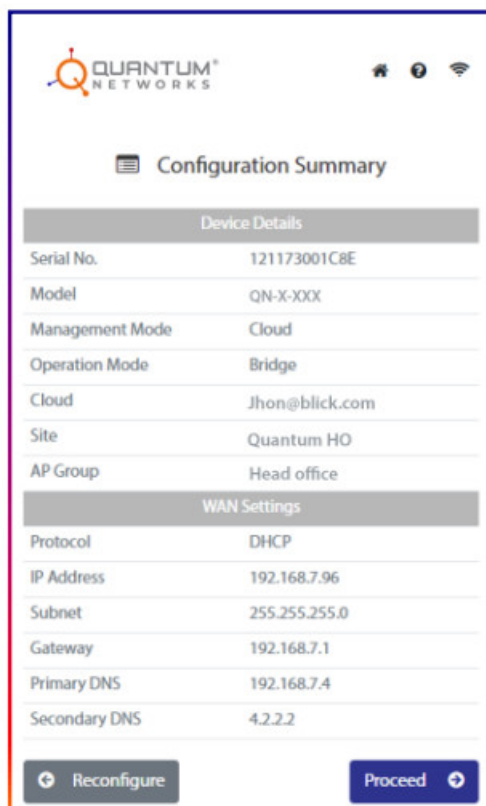
- Upgrade QNOS version by either downloading from the cloud or by selecting manually from respective location and upgrade or click “Skip Upgrade” to move further.
- The user will turn to a page where the user has to select the site and AP group.



Quantum Networks logo and navigation icons (Home, Help, Wi-Fi) are at the top. The title "RUDDER Setup" is centered with a gear icon. Below are two dropdown menus: "Select Site" with "Quantum HO" selected, and "Select AP Group" with "Head office" selected. At the bottom are "Back" and "Proceed" buttons.

Figure 7

- Select Rudder site and AP Group where Access Point's needs to be added and click "Proceed".
 - o If the selected site is already having another Access Point, it will automatically configure AP in a bridge mode and will turn the user on the summary page after clicking "Proceed". (Figure 8)
 - o If this is the first Access Point for the selected site – the user will turn on the page, where the user can select Access Point Operation mode as Bridge or Router. (Figure 9)



Quantum Networks logo and navigation icons are at the top. The title "Configuration Summary" is centered. Below is a table with device details and WAN settings.

Device Details	
Serial No.	121173001C8E
Model	QN-X-XXX
Management Mode	Cloud
Operation Mode	Bridge
Cloud	Jhon@blick.com
Site	Quantum HO
AP Group	Head office

WAN Settings	
Protocol	DHCP
IP Address	192.168.7.96
Subnet	255.255.255.0
Gateway	192.168.7.1
Primary DNS	192.168.7.4
Secondary DNS	4.2.2.2

At the bottom are "Reconfigure" and "Proceed" buttons.

Figure 8



Quantum Networks logo and navigation icons are at the top. The title "Operation Mode" is centered. Below are two buttons: "Bridge" (highlighted in orange) and "Router". Below the buttons is a text description: "In Bridge Mode, device connects to the network by ethernet cable and extends the wireless coverage of existing network." Below the text is a diagram showing a globe connected to a router, which is connected to an access point, which is connected to a laptop. At the bottom are "Back" and "Proceed" buttons.

Figure 9

Bridge

- Select option Bridge and click "Proceed".

- Configure WLAN (SSID) parameters and click “Proceed”.

Parameter	Value
WLAN Name	Define a name for the network
SSID	Define visible wireless network name
Passphrase	Configure a passphrase for SSID

The screenshot shows the 'Configuration' screen for Quantum Networks. Under the 'WLAN' section, there are three input fields: 'WLAN Name' with the value 'Jhon', 'SSID' with the value 'Demo1', and 'Passphrase' with a masked value '*****'. At the bottom, there are three buttons: 'Back', 'Skip', and 'Proceed'.

Note: If you do not want to create **WLAN (SSID)/LAN** now, click the **Skip** option. It will turn to **Configuration Summary**.

Figure 10

The screenshot shows the 'Configuration Summary' screen. It is divided into three sections: 'Device Details', 'WAN Settings', and 'WLAN Details'.
Device Details:
 Serial No. 121173001C8E
 Model QN-X-XXX
 Management Mode Cloud
 Operation Mode Bridge
 Cloud Jhon@blick.com
 Site Quantum HO
 AP Group Head office
WAN Settings:
 Protocol DHCP
 IP Address 192.168.7.96
 Subnet 255.255.255.0
 Gateway 192.168.7.1
 Primary DNS 192.168.7.4
 Secondary DNS 4.2.2.2
WLAN Details:
 WLAN Jhon
 SSID Demo1
 Radio 2.4 GHz, 5 GHz
 Encryption WPA2
 Algorithm AES
 Passphrase *****
 At the bottom, there are two buttons: 'Reconfigure' and 'Proceed'.

Review the Configuration Summary. Click “Reconfigure” if any changes are required or click “Proceed” to complete the configuration.

Figure 11

Router

- Select option Router and click “Proceed”.
- Configure WLAN (SSID) and Local subnet parameters and click “Proceed”.

Parameter	Value
WLAN	
WLAN Name	Define a name for the network
SSID	Define visible wireless network name
Password	Configure passphrase for SSID
Local Subnet	
Subnet Mask	LAN IP address. This IP address can be used for accessing this Access Point
IP Address	LAN Subnet mask

Quantum Networks Configuration screen. The screen displays the following settings:

- WLAN:**
 - WLAN Name: Jhon
 - SSID: Demo1
 - Passphrase: *****
- Local Subnet:**
 - IP Address: 192.168.7.60
 - Subnet: 255.255.255.0

At the bottom, there are three buttons: Back, Skip, and Proceed.

Figure 12

Quantum Networks Configuration Summary screen. The screen displays the following settings:

- Device Details:**
 - Serial No.: 121173001C8E
 - Model: QN-X-XXX
 - Management Mode: Cloud
 - Operation Mode: Router
 - Cloud: Jhon@blick.com
 - Site: Quantum HO
 - AP Group: Head office
- WAN Settings:**
 - Protocol: DHCP
 - IP Address: 192.168.7.96
 - Subnet: 255.255.255.0
 - Gateway: 192.168.7.1
 - Primary DNS: 192.168.7.4
 - Secondary DNS: 4.2.2.2
- Local Subnet:**
 - Name: Default
 - IP: 192.168.7.60
 - Subnet: 255.255.255.0
- WLAN Details:**
 - WLAN: Jhon
 - SSID: Demo1
 - Radio: 2.4 GHz, 5 GHz
 - Encryption: WPA2
 - Algorithm: AES
 - Passphrase: *****

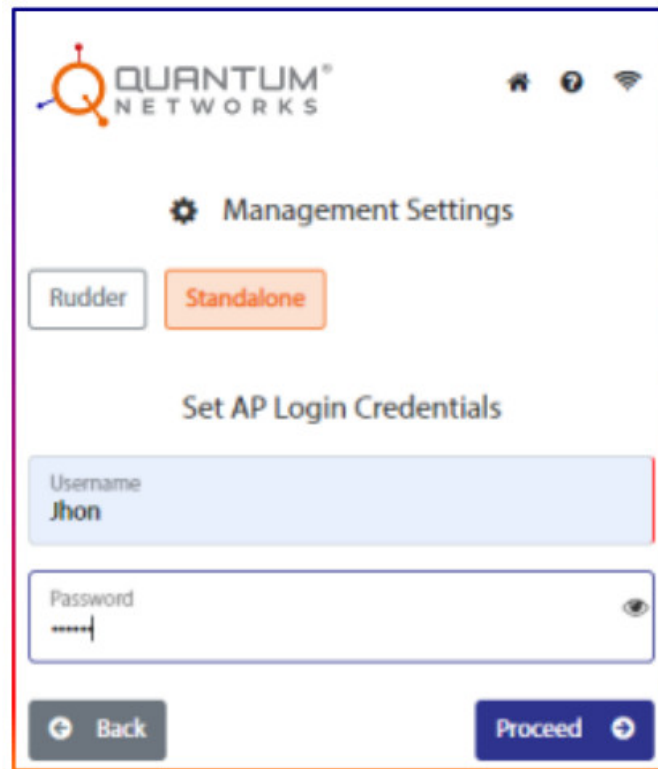
At the bottom, there are two buttons: Reconfigure and Proceed.

Figure 13

Note: If you do not want to create WLAN (SSID)/LAN now, click the Skip option. It will turn to Configuration Summary.

- Review the Configuration Summary. Click “Reconfigure” if any changes are required or click “Proceed” to complete the configuration.

Step 6 – Access Point quick setup in standalone mode



Quantum Networks logo and status icons (Home, Info, Wi-Fi) are at the top. The title is "Management Settings". Below it are two buttons: "Rudder" and "Standalone" (highlighted in orange). The section "Set AP Login Credentials" contains a "Username" field with the text "Jhon" and a "Password" field with masked characters. At the bottom are "Back" and "Proceed" buttons.

Figure 14

- Select "Management Mode" as "Standalone" if each Access Point is to be configured and managed individually. Define username and password for the device and click "Proceed".
- User can select Access Point Operation mode as Bridge or Router.



Quantum Networks logo and status icons are at the top. The title is "Operation Mode". Below it are two buttons: "Bridge" (highlighted in orange) and "Router". A text block explains: "In Bridge Mode, device connects to the network by ethernet cable and extends the wireless coverage of existing network." Below this is a network diagram showing a globe connected to a router, which is connected to an access point, which is then connected to a laptop. At the bottom are "Back" and "Proceed" buttons.

Figure 15

Bridge

- Select option Bridge and click “Proceed”.
- Configure WLAN (SSID) parameters and click “Proceed”.

Parameter	Value
Country	Select country for radio management.
Timezone	Select timezone for Rudder management.
WLAN Name	Define a name for the network.
SSID	Define visible wireless network name.
Passphrase	Configure a passphrase for SSID.

- Review the Configuration Summary. Click “Reconfigure” if any changes are required or click “Proceed” to complete the configuration.

The screenshot shows the Quantum Networks Configuration interface. At the top, there's a header with the Quantum Networks logo and a 'Configuration' title. Below this, the 'General' section contains two dropdown menus: 'Country' set to 'India' and 'Timezone' set to 'Asia/Kolkata'. The 'WLAN' section below it has three input fields: 'WLAN Name' with the value 'Jhon', 'SSID' with the value 'Demo', and 'Passphrase' with masked characters. At the bottom, there are 'Back' and 'Proceed' buttons.

Figure 16

The screenshot shows the 'Configuration Summary' screen. It displays a summary of the configured settings in a table-like format. The sections include:

- Device Details:** Serial No. 121173001C8E, Management Mode Standalone, Operation Mode Bridge.
- WAN Settings:** Protocol DHCP, IP Address 192.168.7.96, Subnet Mask 255.255.255.0, Gateway 192.168.7.1, Primary DNS 192.168.7.4, Secondary DNS 4.2.2.2.
- WLAN Details:** WLAN Jhon, SSID Demo, Radio 2.4 GHz, 5 GHz, Passphrase masked.
- User Details:** Username Jhon, Password masked.

 At the bottom, there are 'Reconfigure' and 'Proceed' buttons.

Figure 17

Router

- Select option Router and click “Proceed”.
- Configure WLAN (SSID) and Local subnet parameters and click “Proceed”.

Parameter	Value
WLAN	
Country	Select country for radio management.
Timezone	Select timezone for Rudder management.
WLAN Name	Define a name for the network.
SSID	Define visible wireless network name.
Password	Configure a passphrase for SSID.
Local Subnet	
IP Address	LAN IP address. This IP address can be used for accessing this Access Point.
Subnet Mask	LAN subnet mask.

- Review the Configuration Summary. Click “Reconfigure” if any changes are required or click “Proceed” to complete the configuration.

QUANTUM NETWORKS

Configuration

General

Country: India

Timezone: Asia/Kolkata

WLAN

WLAN Name: Jhon

SSID: Demo

Passphrase: *****

Local Subnet

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

Back Proceed

Figure 18

QUANTUM NETWORKS

Configuration Summary

Device Details

Serial No. 121173001C8E

Management Mode Standalone

Operation Mode Router

WAN Settings

Protocol DHCP

IP Address 192.168.7.96

Subnet Mask 255.255.255.0

Gateway 192.168.7.1

Primary DNS 192.168.7.4

Secondary DNS 4.2.2.2

Local Subnet

Name LAN

IP 192.168.1.1

Subnet 255.255.255.0

WLAN Details

WLAN Jhon

SSID Demo

Radio 2.4 GHz, 5 GHz

Passphrase *****

User Details

Username Jhon

Password *****

Reconfigure Proceed

Figure 19

Reset Access Point to factory defaults

- Power on the Access Point
- Push the reset button on the back panel and hold it for 10 seconds.

- Access Point would restart with factory defaults

Access Point default login detail

With standalone mode:

User Name: Created while doing “Quick Setup”

Password: Created while doing “Quick Setup”

With Rudder mode:

User Name: Auto Generated, administrator can change from site settings.


Password: Auto Generated, administrator can change from site settings.

If you encounter problems while installing or using this product, please browse www.qntmnet.com for:









- Direct contact with the support center.
- o Contact: 18001231163
- o Email: support@qntmnet.com
- For the latest software, user documentation and product updates browse: qntmnet.com/resource-library



Documents / Resources

	<p>QUANTUM NETWORKS QN-I-210-PLUS Access Point [pdf] User Guide QN-I-210-PLUS, QN-I-210-PLUS Access Point, Access Point, Point</p>
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References

-  [Resource Library | Quantum Networks](#)
-  [Welcome to nginx!](#)
-  [Quantum Network](#)
-  [Quantum Networks | Reinventing Networks](#)
-  [Quantum Networks | Reinventing Networks](#)
-  [Resource Library | Quantum Networks](#)
-  [Quantum Network](#)
-  [Quantum Network](#)
- [User Manual](#)

