



## Quick Installation Guide

The CG2200 is a high-performance cable gateway which combines D3.0 cable modem, router, voice and wireless AP in a single device.

The CG2200 provides :

- Compliant with DOCSIS 3.0 and US DOCSIS 3.0 standards along with PacketCable specification to deliver high-end performance and reliability
- Dual-band concurrent Wireless Access Point compatible with 802.11b/g/n and 802.11ac
- Four 10/100/1000BASE-T Ethernet ports to provide wired connectivity
- Two line embedded digital voice adapter for wired telephony service
- For easy checking, DOCSIS-compliant LED labeling and indicating provides a user and technician an intuitive method to check operational status and act as a troubleshooting tool

### 1. Front Panel



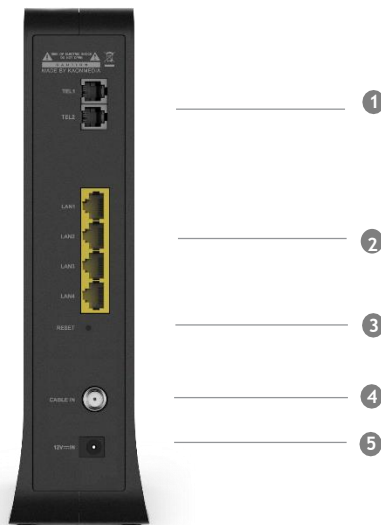
1 POWER	Off	The modem is powered off.
	On	The modem is powered on.
2 DS	Off	The initialization is not started, or has failed.
	Flashing	The modem is scanning for downstream channel.
3 US	On	The modem is downstream locked.
	Off	The initialization is not started, or has failed.
4 ONLINE	Flashing	The modem is upstream ranging.
	On	The modem is upstream locked.
	Off	Internet service is not available.
	On	Internet service is available.

	Off	2.4G WiFi Interface disabled.
5 2.4G	Flashing	2.4G WiFi is sending or receiving data.
	On	2.4G WiFi Interface enabled.
	Off	5G WiFi Interface disabled.
6 5G	Flashing	5G WiFi is sending or receiving data.
	On	5G WiFi Interface enabled.
	Off	The LAN port is not connected.
7 ETH 1~4	Flashing	The LAN port is sending or receiving data.
	On	The LAN port is connected.
	Off	The telephony service is not available.
8 TEL1~2	Flashing	The telephony line is in use.
	On	The telephony service is available.
9 WPS	Push	Button for WPS configuration.

## 2. LED Status

LED	Power up Initial	DS scan	DS locking	US ranging	Request CM IP	Request CM config	CMTS register Complete	Request MTA IP	Request MTA config	Restart Voice service	Telephone Register complete
Power	On	On	On	On	On	On	On	On	On	On	On
DS	Blinking	Blinking	On	On	On	On	On	On	On	On	On
US	Blinking	Off	Off	Blinking	On	On	On	On	On	On	On
ONLINE	Blinking	Off	Off	Off	Off	Blinking	On	On	On	On	On
2.4G/5G	Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off
ETH1~4	Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off	On/Off
TEL1~2	Off	Off	Off	Off	Off	Off	Off	Blinking	Blinking	Blinking	On

## 3. Rear Panel



- 1 TEL1~2 RJ11 Telephone ports to connect your phone or fax.
- 2 LAN1~4 RJ45 Ethernet ports to connect your PC or home network devices.
- 3 RESET Pin-hole for factory reset.
- 4 CABLE IN Connects the coaxial cable for cable internet service.
- 5 12VIN Connects the unit to DC 12V power.

#### 4. Connecting and Installing devices

Before installation, please check with your service provider to ensure that the cable broadband is active.



#### 5. Instruction for Connecting Modem – PC

1) Make sure the following:

- Your Cable Modem is powered ON. The power LED will be turned ON.
- Your PC is turned-on and connected to Cable Modem using an Ethernet cable.
- Connect tightly the coaxial cable to the cable outlet.
- After Online LED is ON, Cable Modem becomes online.

2) Configure your PC to obtain an IP address from a DHCP server.

3) From your PC, start your web browser application like Chrome, Internet Explorer, or etc.

4) Type a valid URL such as "[www.kaonmedia.com](http://www.kaonmedia.com)" and <Enter>.  
The web site should be open if connected correctly.

#### 6. Package Content



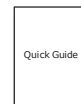
CG2200



Power Adaptor



Ethernet Cable  
(CAT5/RJ45)



Quick Guide

Adaptador ca/cc  
Entrada: 100-240 Vca 50/60 Hz 0.8ª  
Salida: 12 Vcc 2.5A

Elaborado por : **KAON**

IMPORTADOR: KAONMEDIA DE MÉXICO, S. DE R.L. DE C.V.  
Sudermann 404 Oficina 502, Bosques de Chapultepec  
Miguel Hidalgo. C.P.11580, Ciudad de México.

## Specification

Main Chipset	(DOCSIS 3.0 24x8) BCM3384ZU - 2300 DMIPS Zephyr Process, 1GHz dual-issue - 1600 DMIPS VIPER Process, 600MHz dual WLAN BCM4360 (3x3 802.11n) WLAN BCM4360 (3x3 802.11ac)
Memory	Flash: NOR 32MB RAM : 256MB DDR3
Wi-Fi	802.11 a/b/g/n/ac MU-MIMO 2.4GHz 3x3 + 5GHz 3x3 Dual Band Concurrent Internal Antennas
Mesh	KAON Smart Mesh
Front	12 xLED (PWR, DS, US, Online, 2.4G, 5G, ETH1~4, TEL 1~2) WPS Button
Rear	1 x Reset pin-hole 4 x GbE LAN Ports 1 x Cable In 2 x TEL Ports 1 x Power In
Power	DC 12V (2.5A)
Package	CG2200 User Guide Ethernet Cable Power Supply Serial Label, Giftbox Label

## Exterior Design



# Instrucciones de seguridad importantes

## Precaución



Lea cuidadosamente antes de usar el producto. Las instrucciones que se describen a continuación contienen información importante acerca de la seguridad. La empresa no asume ninguna responsabilidad por accidentes y daños resultantes de una manipulación descuidada por parte del usuario.

1. Lea estas instrucciones.
2. Conserve estas instrucciones.
3. Ponga atención a todas las advertencias.
4. Siga todas las instrucciones.
5. No utilice este aparato cerca del agua.
6. Limpiar con un paño seco.
7. No bloquee las aberturas de ventilación. Instale de acuerdo con las instrucciones del fabricante.
8. No instale cerca de fuentes de calor, como radiadores, calentadores, estufas u otros aparatos (incluyendo amplificadores) que generen calor.
9. No anule o modifique el enchufe eléctrico polarizado o con toma de tierra. Un enchufe polarizado tiene dos clavijas, una más ancha que la otra. Un enchufe con toma de tierra tiene dos clavijas y una tercera clavija de conexión a tierra. La hoja ancha o la tercera clavija se proporcionan para su seguridad. Si el enchufe suministrado no encaja en su toma, consulte a un electricista para reemplazar la toma obsoleta.
10. Proteja el cable de alimentación de ser pisado o aplastado, especialmente en los enchufes y el punto donde sale del aparato.
11. Utilice solamente los adlantes/accesorios especificados por el fabricante.
12. Coloque el equipo sobre una superficie plana, firme y segura. Se recomienda sobre una mesa, no lo coloque sobre el piso.
13. Desenchufe el aparato durante las tormentas eléctricas o cuando no lo utilice durante largos períodos de tiempo.
14. Solicite el servicio al personal calificado. Se requiere servicio cuando el aparato ha sido dañado de alguna manera, por ejemplo si el cable de alimentación o el enchufe está dañado, se ha derramado líquido o han caído objetos dentro del aparato, el aparato ha estado expuesto a la lluvia o humedad, no funciona normalmente o se ha caído.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture or equivalent. "Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus."

**ADVERTENCIA:** Para reducir el riesgo de incendio o descarga eléctrica, no exponga este aparato a la lluvia ni a la humedad o equivalente. El aparato no debe estar expuesto a goteos, salpicaduras o algún objeto lleno de líquido, como jarrones, sobre el aparato.

NOTE: 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.

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.

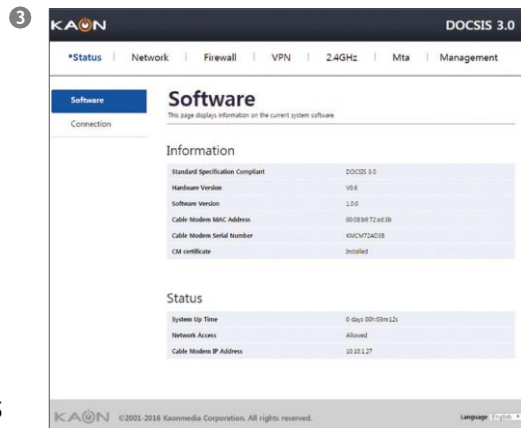
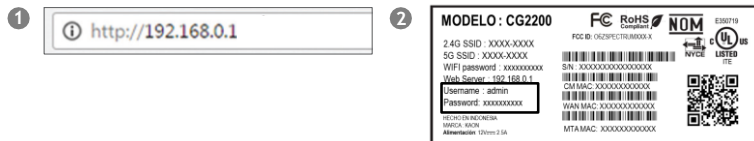
**Caution :** Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) used for this device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

# 1 How to access Kaon Web Page

Access the web server, and check the equipment status and progress user settings.

- 1 Type <http://192.168.0.1> on your web browser address bar.
- 2 Enter username and password. (User Name : admin / Password : Find it on label on the set)
- 3 Check the status of the device software information on the STATUS table.



# 2 Network Configuration

Enable to set the IP address available on the device, and this IP is used to access the web server. The IP address must not be forgotten.

>>LANsetting

- 1 IPv4 setting is supported.
- 2 Click "Apply" button on the bottom of the page after inserting IP address on the input entries.



# 3 Network Configuration

If ISP uses DHCP, select "DHCP" for WAN Connection Type.  
If ISP uses static IP addressing, select "Static IP" for WAN Connection Type, and enter the information(GW, Subnet Mask, DNS) provided by ISP.

>>WANsetting

- 1 WAN connection Type.  
Select DHCP or Static IP to be applied.  
If DHCP is selected, IP assigned automatically from DHCP server can be used (recommended).  
If Static IP is selected, IP generated by user setting can be used.
- 2 When Static IP is selected, enter exactly the IP into the input text fields.
- 3 Click "Apply" button on the bottom of the page after inserting all data into the each inputentry.

1 WAN Connection Type: DHCP (selected). IPv4 MTU Size: 1500 octets, 0 = use default. Spoofed MAC Address: [empty]. Apply.

2 WAN Connection Type: Static IP (selected). IP Address: 0.0.0.0, IP Mask: 0.0.0.0, Default Gateway: 0.0.0.0, Primary DNS: 0.0.0.0, Secondary DNS: 0.0.0.0, IPv4 MTU Size: 0 (256-1500 octets, 0 = use default). Apply.

3 WAN Connection Type: DHCP (selected). IPv4 MTU Size: 1500 octets, 0 = use default. Spoofed MAC Address: [empty]. Apply.

# 4 DHCP Server Configuration

If the DHCP server is activated, the devices connected to the equipment can get assigned automatically a private IP address.

- 1 Select DHCP on the Network menu.
- 2 If you select "Yes" radio button, the DHCP Server is activated.
- 3 Enter the starting IP address available in the DHCP Server.
- 4 Enter the quantity of IP address to be assigned.
- 5 Enter the lease time. (Default recommended)
- 6 Click "Apply" button to set the information to be applied.

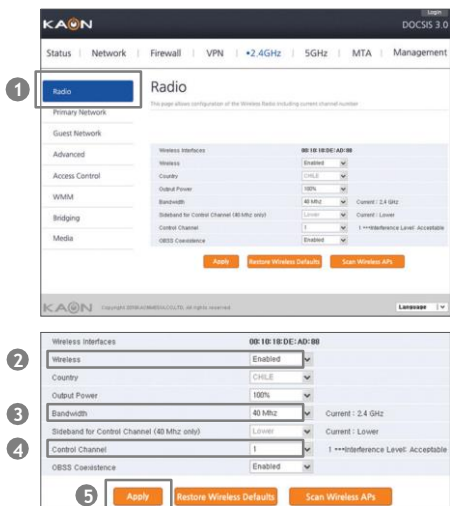
1 DHCP (selected). DHCPv6: [empty]. LAN IPv6: [empty]. DDNS: [empty]. DHCP Server: Yes (selected). Starting Local Address: 192.168.0.10, Number of CPEs: 245, Lease Time: 3600. Apply.

2 DHCP Server: Yes (selected). Starting Local Address: 192.168.0.10, Number of CPEs: 245, Lease Time: 3600. Apply.

## 5 Wireless Configuration (Radio)

Set whether wireless, and the default information. The default settings recommended.

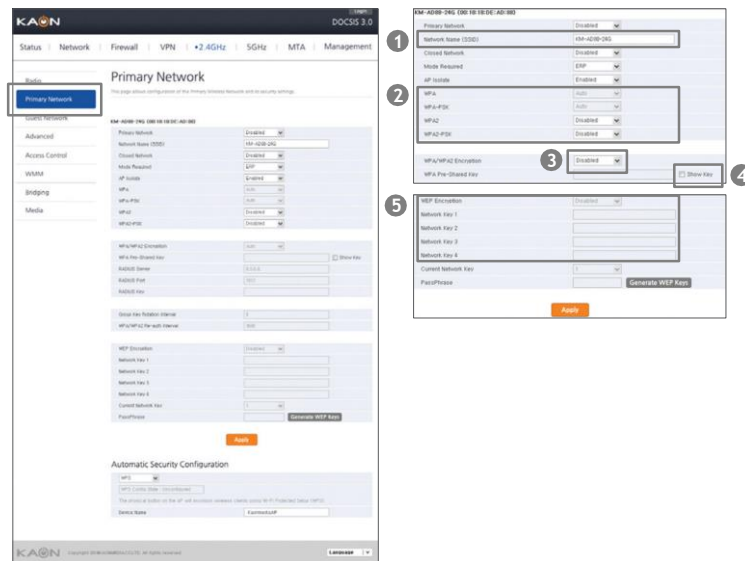
- 1 Select "Radio" on wireless interface.
- 2 If you select "Enabled" on wireless, Wireless is activated.
- 3 Set the usable channel bandwidth (Default recommended).
- 4 Usable to set whether automatic or certain channel. Performance may be affected by the degree of wireless congestion on a certain channel.
- 5 Click "Apply" button to set the information to be applied.



## 6 Wireless Configuration (Primary Network)

You set SSID and authentication method for connection to WiFi network.

- 1 Set SSID on connecting WIFI network.
- 2 Select the applicable encryption method for the access authentication.
- 3 Select the applicable type of AES or TKIP+AES upon the access authentication.
- 4 "Show Key" Check-box is checked, the inserted password is available to be read on the textbox.
- 5 4 WEP keys are supported, and at least 1 key is usable.
- 6 Click "Apply" button to set the information to be applied.

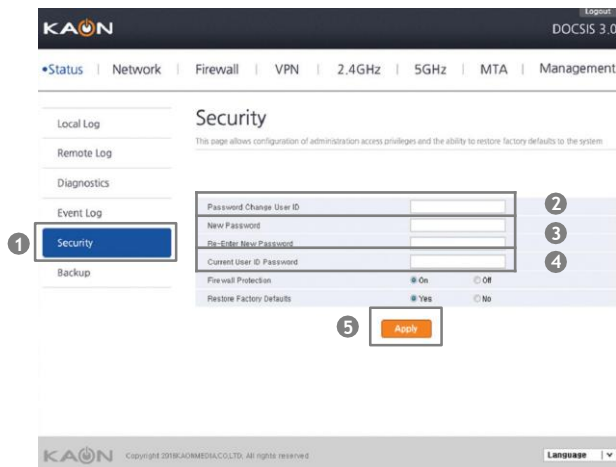




# 7 Status (Security)

You set the account information to enable to access to the equipment.

- 1 Click "Status" menu on "Status" page.
- 2 Input user ID.
- 3 Input new password on New Password text box and input the equal one to Re-Enter New Password text box.
- 4 Input the password of current user ID to get the user authentication.
- 5 Click "Apply" button to set the information to be applied.



# 8 Spectrum Analyzer (DS/US)

Spectrum Analyzer enables the technicians to configure an interactive GUI to understand about characteristics on the CM, it works normally as they utilize a regular spectrum analyzer.

- 1 Type <http://192.168.100.1:8080> on your web browser address bar.
- 2 Click 'RUN' button to run spectrum analyzer.

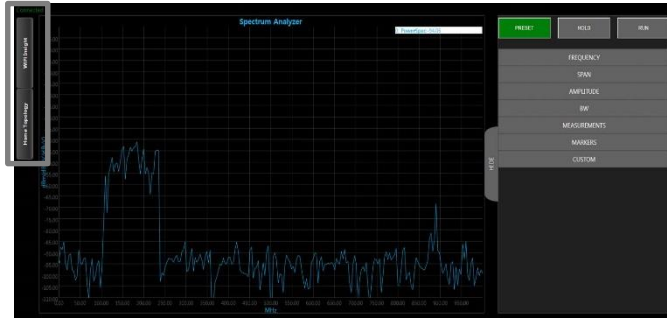
- Main Control
  - PRESET button : Resets all the settings back to its default values.
  - HOLD button : Stops the spectrum analyzer from running.
  - RUN button : Starts the spectrum analyzer.
- Settings
  - FREQUENCY : Specifies the frequency (center, start, or stop) to monitor in terms of Hz.
  - SPAN : Specifies how wide of a span to view in terms of Hz.
  - AMPLITUDE : Sets the reference level (offset) of the input signal.
  - BW : Bandwidth
  - MEASUREMENTS



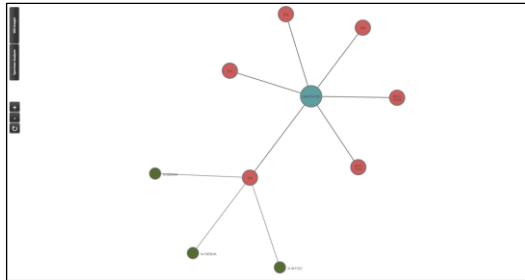
# 9 Wireless Insight

Wireless Insight is able to support that technician can configure an interactive GUI to do following cases.

- 1 Type <http://192.168.100.1:8080> on your web browser address bar.
- 2 Push the WiFi Insight on left side of web browser



In addition, Home Topology tool will help to see the current network connection via the AP.



# TROUBLESHOOTING

Use this section to solve common problems with the CG2200 and your network.

## **Problem: None of the LEDs Turn On**

The CG2200 is not receiving power, or there is a fault with the device.

1. Ensure that you are using the correct power adaptor. (You should use CG2200 Power adapter, don't use other adaptor)
2. Ensure that the power adaptor is connected to the CG2200 and the wall socket (or other power source) correctly.
3. Ensure that the power source is functioning correctly. Replace any broken fuses or reset any tripped circuit breakers.
4. Disconnect and re-connect the power adaptor to the power source and the CG2200.
5. If none of the above steps solve the problem, consult your vendor.

## **Problem: Some of the LEDs does not Display as Expected**

1. Ensure that you understand the LED's normal behavior (See [LEDs on page 1~2](#)).
2. Ensure that the CG2200's hardware is connected correctly; see the Quick Installation Guide.
3. Disconnect and re-connect the power adaptor to the CG2200
4. If none of the above steps solve the problem, consult your vendor.

## **Problem: I Forgot the CG2200's IP Address**

1. The CG2200's default LAN IP address is **192.168.0.1**.
2. You can locate the CG2200's GUI by entering the LAN domain suffix into your browser's address bar (on a computer connected to the LAN). Depending on your operating system and your network, you may be able to find the CG2200's IP address by looking up your computer's default gateway. To do this on (most) Windows machines, click **Start > Run**, enter "cmd", and then enter "ipconfig". Get the IP address of the **Default Gateway**, and enter it in your browser's address bar.
3. If you still cannot access the CG2200, you need to reset the CG2200. Press reset button on the rear side of CG2200 for at least 3 seconds. All user-configured data is lost, and the CG2200 is returned to its default settings. If you previously backed-up a more recent version your CG2200's settings, you can now upload them to the CG2200.

## **Problem: I Forgot the CG2200's Admin Username or Password**

1. The default username is **admin**, and the default password is printed on the label on the set.
2. If the default username and password do not work, you need to reset the CG2200 back to its factory defaults by pressing reset button for at least 3 seconds. All user-configured data is lost, and the CG2200 is returned to its default settings. If you previously backed-up a more recent version your CG2200's settings, you can now upload them to the CG2200.

**Problem: I Cannot Access the CG2200 or the Internet**

1. Ensure that you are using the correct IP address for the CG2200
2. Check your network's hardware connections, and that the CG2200's LEDs display correctly (see LEDs on page 1~2).
3. Make sure that your computer is on the same subnet as the CG2200.
4. If you are attempting to connect over the wireless network, there may be a problem with the wireless connection. Connect via a **LAN** port instead.
5. If the above steps do not work, you need to reset the CG2200 back to its factory defaults by pressing reset button for at least 3 seconds. All user-configured data is lost, and the CG2200 is returned to its default settings. If you previously backed-up a more recent version of your CG2200's settings, you can now upload them to the CG2200
6. If the problem persists, contact your vendor

**Problem: I Cannot Access the Internet and the DS and US LEDs Keep Blinking**

Your service provider may have disabled your Internet access; check the Status -> Connection screen's Connectivity State field.

**Problem: I Cannot Connect My Wireless Device**

1. Ensure that your wireless client device is functioning properly, and is configured correctly. See the wireless client's documentation if unsure.
2. Ensure that the wireless client is within the CG2200's radio coverage area. Bear in mind that physical obstructions (walls, floors, trees, etc.) and electrical interference (other radio transmitters, microwave ovens, etc) reduce your CG2200's signal quality and coverage area.
3. Ensure that the CG2200 and the wireless client are set to use the same wireless mode and SSID and security settings
4. Re-enter any security credentials (WEP keys, WPA(2)-PSK password, or WPS). If you are using WPS's PBC (push-button configuration) feature, ensure that you are pressing the button on the CG2200 and enable the wireless client within two minutes of one another.
5. CG2200's settings, you can now upload them to the CG2200
6. If the problem persists, contact your vendor.