



RG-EG2100-P V2

Hardware Installation and Reference Guide

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Preface

Thank you for using our products. This manual will guide you through the installation of the device.

This manual describes the functional and physical features and provides the device installation steps, hardware troubleshooting, module technical specifications, and specifications and usage guidelines for cables and connectors.

Audience

It is intended for the users who have some experience in installing and maintaining network hardware. At the same time, it is assumed that the users are already familiar with the related terms and concepts.

Obtaining Technical Assistance

- Ruijie Networks Website: <https://www.ruijienetworks.com/>
- Technical Support Website: <https://ruijienetworks.com/support>
- Case Portal: <http://caseportal.ruijienetworks.com>
- Community: <http://community.ruijienetworks.com>
- Technical Support Email: service_rj@ruijienetworks.com
- Skype: [service_rj@ruijienetworks.com](https://www.ruijienetworks.com)

Related Documents

Documents	Description
Configuration Guide	Describes network protocols and related mechanisms that supported by the product, with configuration examples.
Command Reference	Describes the related configuration commands, including command modes, parameter descriptions, usage guides, and related examples.

Symbol Conventions



Note Means reader take note. Notes contain helpful suggestions or references.



Caution Means reader be careful. In this situation, you might do something that could result in equipment damage or loss of data.

Product Overview

Featured with global-leading semiconductor technologies and communication control technologies, Ruijie EG series breakout gateway is a data communication product developed by Ruijie Networks with independent intellectual property right. The EG series breakout gateway is designed according to international standards, similar to the mainstream breakout gateway products in the international market. By reading this manual, a network administrator familiar with mainstream breakout gateway configuration commands can use this device without training.

RG-EG2100-P V2

Specifications

Model	RG-EG2100-P V2
Storage	DDR3 SDRAM: 512MB
	eMMC: 4GB
	BOOTROM: 2MB
I/O Setup	WAN port: One 10/100/1000M self-adaptive fast Ethernet copper port, automatic recognition of network cables and cross-over cables. LAN1 supports WAN/LAN switchover.
	LAN port: Seven 10/100/1000M self-adaptive fast Ethernet copper ports, automatic recognition of network cables and cross-over cables. LAN1 supports WAN/LAN switchover.
	No management port
	One Console port
	One USB2.0 port
BYPASS	Not supported
Power Module	Built-in 150W power module
PoE Consumption	≤135W
Hardware Expansion Module	Not supported
Expansion Module	Not supported
Hot-swapping	Not supported
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX
	Console port: RS-232
Dimension (without rubber pads) (W x H x D)	200 mm x 43.6 mm x 200 mm (7.87 in. x 1.72 in. x 7.87 in.)
Voltage	100V to 240V~, 50/60Hz, 3A
Power Consumption	<150W (With PoE)
Working Temperature	0°C to 45°C (32°F to 113°F)

Working Humidity	10% to 90% RH (non-condensing)
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Note The nameplate is attached to the bottom of the device.



Note Not all USB disks are supported. The Kingston USB disk with FAT32 is recommended.



Caution Please avoid the vibration and collision in the process of moving and usage.



Caution Products should be transported in original package.

Appearance

Figure 0-1 Front Panel of RG-EG2100-P V2 Breakout Gateway

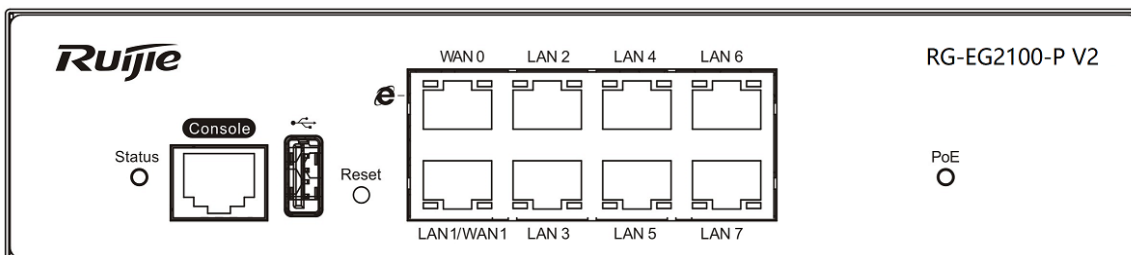
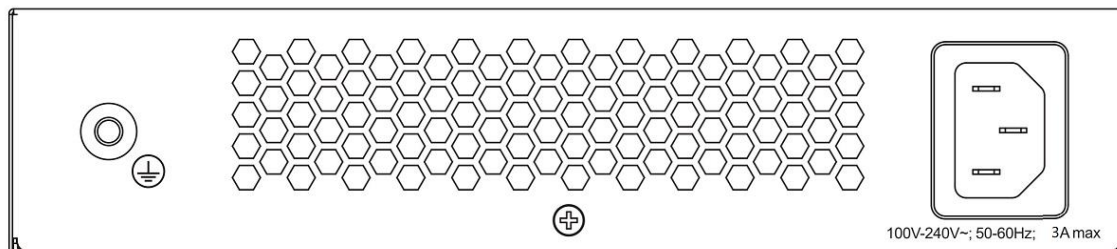


Figure 0-2 Back Panel of RG-EG2100-PV2



LED Indicator

LED Indicator	Working Status
SYS	Blinking green: The device is being initialized. Solid green: System initialization is complete. Solid red: An alarm is generated.
0-7	Solid green: The port is up. Blinking green: Data is being transceived on the port.
PoE	Solid green: PoE works normally. Red/green flashing alternately: PoE overload occurs.

Solid red: An alarm is generated.

APs Supporting EG2100-P V2

Model	Max Consumption	Hardware Version	Software Version
AP110-W	4W	V1.1	RGOS 11.1(5)B8
AP120-S	4W	V1.0	RGOS 11.1(5)B8
AP120-W	6W	V1.X	RGOS 11.1(5)B8
AP220-E	11.2W	V2.99	RGOS 11.1(5)B8
AP220-E	11.2W	V5.0	RGOS 11.1(5)B8
AP220-E	11.2W	V2.03	RGOS 11.1(5)B8
AP220-E	12.95W	V1.X	RGOS 11.1(5)B8
AP220-E	11.2W	V2.X	RGOS 11.1(5)B8
AP220-E	12.95W	V1.99	RGOS 11.1(5)B8
AP220-E(C)	12.95W	V3.0	RGOS 11.1(5)B8
AP220-E(C)	12.95W	V4.0	RGOS 11.1(5)B8
AP220-E(C)	12.95W	V2.99	RGOS 11.1(5)B8
AP220-E(M)	12.95W	V1.5	RGOS 11.1(5)B8
AP220-E(M)	12.95W	V2.X	RGOS 11.1(5)B8
AP220-E(M)-V2	12.95W	V3.0	RGOS 11.1(5)B8
AP220-E(P)	10.5W	V1.0	RGOS 11.1(5)B8
AP220-E(P)	10.5W	V2.0	RGOS 11.1(5)B8
AP220-I	12.95W	V1.X	RGOS 11.1(5)B8
AP220-SE	11W	V1.X	RGOS 11.1(5)B8
AP220-SH	11W	V1.X	RGOS 11.1(5)B8
AP220-SH	9.5W	V2.X	RGOS 11.1(5)B8
AP220-SH(C)	12.95W	V2.99	RGOS 11.1(5)B8
AP220-SH(C)	12.95W	V3.0	RGOS 11.1(5)B8
AP220-SI	8.2W	V1.X	RGOS 11.1(5)B8
AP320-I	10.5W	V1.X	RGOS 11.1(5)B8
AP320-I	10.5W	V2.0 (New)	RGOS 11.1(5)B8
AP3220	10.5W	V1.0	RGOS 11.1(5)B8
AP3220-D	10.1W	V1.0	RGOS 11.1(5)B8
AP3220-P	12.95W	V1.0	RGOS 11.1(5)B8
AP3220-S	6.8W	V1.0	RGOS 11.1(5)B8
AP330-I	12.95W	V1.X	RGOS 11.1(5)B8
AP4210	10.8W	V1.0	RGOS 11.1(5)B8
AP5280	25.5W	V1.0	RGOS 11.1(5)B8
AP530-I	19W	V1.5	RGOS 11.1(5)B8
AP530-I	19W	V1.X	RGOS 11.1(5)B8
AP620-H	25W	V1.X	RGOS 11.1(5)B8
AP620-H(C)	25.5W	V2.X	RGOS 11.1(5)B8
AP620-H(C)	25.5W	V2.1	RGOS 11.1(5)B8
AP620-H(-S)	25.5W	V1.0	RGOS 11.1(5)B8

AP630(CD)	25W	V1.0	RGOS 11.1(5)B8
APD(M)-AC	23W	V1.02	RGOS 11.1(5)B8
AW320W	6W	V1.03	RGOS 11.1(5)B8
AW322	10.5W	V1.0	RGOS 11.1(5)B8
RG-AP630	25W	V1.0	RGOS 11.1(5)B8
AM5514	90W	V1.x	RGOS 11.1(5)B9P5
AM5528	230W	V1.x	RGOS 11.1(5)B9P5
AP130(L)	8W	V1.0	RGOS 11.1(5)B9P5
AP130(W)	8W	V2.0	RGOS 11.1(5)B9P5
AP130(W2)	8W	V1.0	RGOS 11.1(5)B9P5
AP130-W	8W	V1.x	RGOS 11.1(5)B9P5
AP4220	12.95W	V1.0	RGOS 11.1(5)B9P5
AP520	12.95W	V1.x	RGOS 11.1(5)B9P5
AP520(BT)	12.95W	V1.0	RGOS 11.1(5)B9P5
AP520(DA)	12.95W	V1.0	RGOS 11.1(5)B9P5
AP520(HD)	8W	V1.0	RGOS 11.1(5)B9P5
AP520(W2)	12.95W	V1.0	RGOS 11.1(5)B9P5
AP520-I	12.95W	V1.X	RGOS 11.1(5)B9P5
AP520-I(G2)	12.95W	V1.X	RGOS 11.1(5)B9P5
AP530-I V2	12.95W	V1.0	RGOS 11.1(5)B9P5
AP530-I V2	12.95W	V2.0	RGOS 11.1(5)B9P5
AP630(CD)	12.95W	V1.0	RGOS 11.1(5)B9P5
AP630(CE)	12.95W	V1.0	RGOS 11.1(5)B9P5
AP630(IDA)	25W	V1.0	RGOS 11.1(5)B9P5
AP630(IODA)	25W	V1.0	RGOS 11.1(5)B9P5
AP720-I	10W	V1.X	RGOS 11.1(5)B9P5
AP720-L	12.95W	V1.X	RGOS 11.1(5)B10
AP740-I	25.5W	V1.X	RGOS 11.1(5)B9P5
AP740-I(C)	25.5W	V1.X	RGOS 11.1(5)B9P5
APD-M(EA)	25W	V1.0	RGOS 11.1(5)B9P5
MAP552	7W	V1.X	RGOS 11.1(5)B9P5
MAP552(S)	4W	V1.X	RGOS 11.1(5)B9P5
MAP552(SR)	8W	V1.0	RGOS 11.1(5)B9P5
MAP552(SR)	8W	V1.1	RGOS 11.1(5)B9P5
MAP552-W	7W	V1.X	RGOS 11.1(5)B9P5
MAP752(E)	9W	V1.X	RGOS 11.1(5)B9P5
MAP752(S)	8W	V1.X	RGOS 11.1(5)B9P5



Note Please do not use APs not included in the list.

Preparation

Safety Precaution

The breakout gateway acts as the critical transfer station of network connections, and its normal service is crucial to the normal operation of the entire network.

- Do not place the device in a watery place and prevent any liquid from entering into it.
- Keep the device away from heat sources.
- Ensure the normal grounding of device.
- Wear an anti-static wrist strap to install and maintain the device.
- Do not wear loose clothes to avoid hooking any parts. Before operation, tighten your band, shawl and sleeves.
- Keep tools and parts away from the walkway to avoid damage.
- Before installing the device, find out the location of the emergency power switch in the room. First cut off the power supply in the case of an accident.
- Use the uninterruptible power supply (UPS) to avoid power failure and other interferences.
- If the system time is incorrect, check whether you have set the clock. If the clock is not set, the time may not be correct; if the clock has been set precisely and the time is still incorrect, the built-in button cell of device may have ran out, which is typically happened after 10-year service.
- Install and use the device in restricted access locations.

**Caution**

Use of wrong battery may cause damage to the device. Do not replace the battery by yourself. Please contact the technical support for help.

**Caution**

Operation of this equipment in a residential environment could cause radio interference.

**Note**

Install and use the device in restricted access locations.

**Note**

Invite professionals and related technicians to install this type of device.

Installation Environment

Ruijie EG series breakout gateway products are for indoor use only. To ensure normal operation and prolong their service life, the installation site must meet the following requirements:

Temperature/humidity requirements

To ensure normal operation and prolong the service life of the device, the equipment room must maintain constant temperature and humidity. If the equipment room is overheated for a long time, the insulation materials may result in defective insulation and even electric leakage. If the relative humidity is low, the insulation spacer may result in dry shrinkage, which will make screws looser and easily generate static electricity in the dry environment, thus damaging the interior circuits on the device. Excessively high temperature will accelerate the aging of insulation materials and compromise the reliability and even service life of the device. The temperature/humidity requirements are shown below (detailed difference between products is described in *Product Overview*):

Temperature		Relative Humidity	
Long-term	Short-term	Long-term	Short-term
15°C to 30°C/ 59°F to 86°F	0°C to 45°C/ 32°F to 113°F	40% to 65%	10% to 90%



Note The temperature/humidity of working environment indicates the value measured at 1.5 m above the floor and 0.4 m ahead of the equipment frame when there is no protection plate on the front and rear side of the equipment frame.



Note Short-term working condition refers to the continuous operation no exceeding 48 hours or accumulative operations no exceeding 15 days in a year.



Note Extremely harsh working environment generally refers to the ambient temperature and humidity which may be encountered when the equipment room air-conditioning system fails but will recover in less than 5 hours every time.

Cleanliness

The dust is also a major threat to the safe operation of device. The dust accumulated on the device may cause electrostatic adsorption and result in poor contact. It will not only compromise the service life of device but also cause communication failure. When the indoor relative humidity is low, such electrostatic adsorption will occur more easily.

Maximum Diameter (µm)	0.5	1	3	5
Maximum Density (Particles/m ³)	1.4×10 ⁷	7×10 ⁵	2.4×10 ⁵	1.3×10 ⁵

Apart from the dust, the device is also sensitive to the hydrochloric acid sulfide contained in the air. These noxious gases will accelerate metal wastage and the aging of certain parts. The upper limits of noxious gases (Sulfur dioxide, Sulfured hydrogen, Nitrogen dioxide, Ammonia and Chlorine) in the following table:

Gas	Average (mg/m ³)	Maximum (mg/m ³)
SO ₂	0.2	1.5
HS	0	0.03
NO ₂	0.04	0.15
N ₂	0.05	0.15

Cl ₂	0.01	0.3
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ESD

The breakout gateway has already given consideration to electrostatic prevention during circuit design, but excessively strong static electricity will still damage the circuit board. The static electricity in the communication network connected with the device is mainly from:

- Outdoor high-voltage transmission line, lightning and other exterior electric fields.
- Indoor environment, flooring material, complete appliance structure and other in-house systems.

To avoid the damage caused by static electricity, we shall:

- Properly ground the device and floor.
- Apply indoor dust control.
- Maintain proper temperature and humidity.
- Before touching the circuit board, wear an anti-static wrist strap and an anti-static uniform.
- Place the circuit board disassembled face up on the antistatic workbench or in the electromagnetic shielded bag.
- When observing or transferring the circuit board of breakout gateway, touch the outer edge of circuit board and avoid direct contact with the components on the circuit board.

Anti-Interference

The interference as mentioned herein refers to electromagnetic or electrical interference, and the anti-interference requirements are described below:

- Effective power grid interference control measures shall be taken against the power supply system.
- The working ground of the breakout gateway shall be kept far away from the grounding device or lightning grounding device of power equipment instead of sharing.
- The gateway shall be kept far away from high-power radio-transmitting station, radar-transmitting station and other high-frequency & heavy-current devices.
- Electromagnetic shielding measures shall be taken whenever necessary.

Installation Site

No matter the breakout gateway is installed in the cabinet or on the workbench, the following requirements shall be met:

- Make sure sufficient room has been reserved for the air intake and air vent of breakout gateway to facilitate the heat elimination of the gateway chassis. It is recommended to install the breakout gateway in the 19-inch standard cabinet. Otherwise, install it on a clean and flat surface. In heated areas, the air conditioning system shall be equipped.
- Make sure the cabinet and workbench is equipped with a good ventilation and cooling system.
- Make sure the cabinet and workbench is steady enough and capable of withstanding the weight of the breakout gateway and its accessories.
- Make sure the cabinet and workbench is properly grounded.

Installation Tools and Devices

Please prepare the following tools and devices:

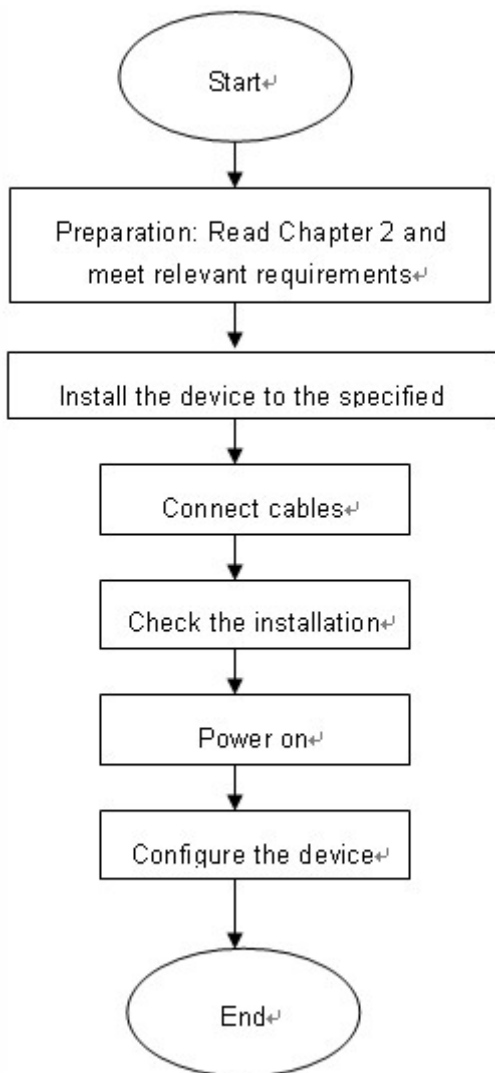
Installation Tools	Phillips screwdriver, ESD wrist strap
Cables	power cables, configuration cables, Ethernet cables, grounding wires
Devices	HUB or switch, configuration terminal (PC with hyper-terminal), power socket

Installing Breakout Gateway

Installation Flowchart

Please take the following steps:

Figure 3-1 Installation Flowchart



Mounting the Breakout Gateway

Mounting the breakout gateway refers to installing the device to the specified position. Upon completion of installation preparation, fix the breakout gateway horizontally to the specified position. The installation position of breakout gateway is generally a cabinet or a workbench.

Mounting into a Cabinet

Ruijie breakout gateway products are designed based on the dimension of a standard cabinet. You can install the device with the enclosed fixing accessories.

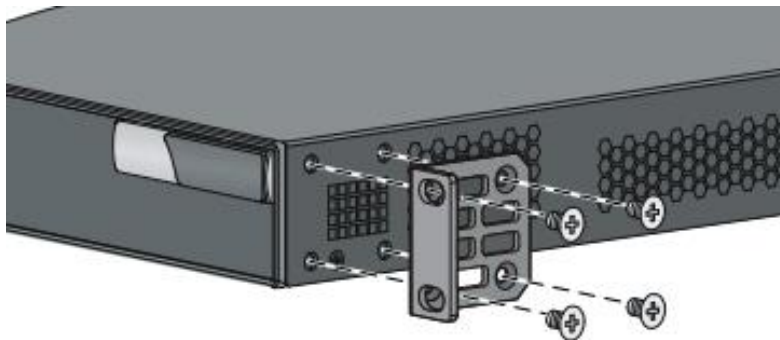
Prerequisites

Before installation, check the following items:

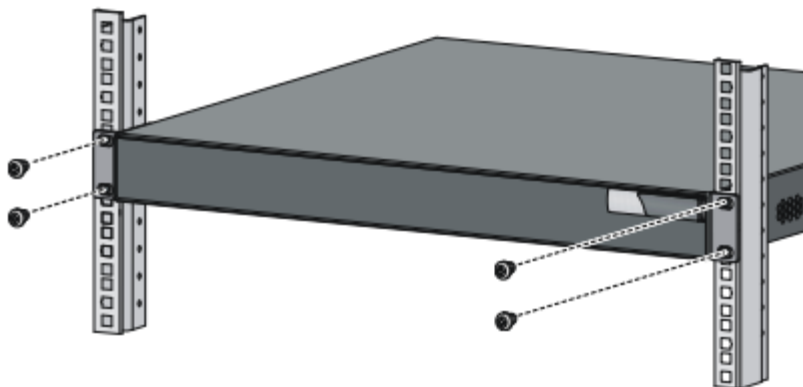
- The cabinet has been properly secured.
- The device installation position in the cabinet has been planned.

Procedure

(1) Install the mounting brackets on both sides of the device according to the *Mounting Bracket Installation Guide* in the package contents.



- (2) Install the cage nuts on both sides of the device.
- (3) Lift the device by both sides and push it horizontally into the cabinet.
- (4) Secure the left and right mounting brackets of the device to the front of the cabinet to fix the device in the cabinet.



Note The installation procedures of different models may vary, and the flow chart is for reference only. For details, see the *Mounting Bracket Installation Guide* delivered with the device.

Follow-up Procedure

After installation, check the following items:

- The device is securely installed in the cabinet.

- About 1 U space is reserved above and below the device to facilitate heat dissipation.
- No objects around the device hinder heat dissipation.

Mounting on a Workbench

In most cases, the user does not have a standard cabinet. Instead, the user can place the device horizontally on a clean workbench. Although it is easy and simple, you shall pay attention to the following:

- Guarantee the steadiness and good grounding of the workbench.
- The side with the nameplate is the bottom of the device. When installing the device, ensure that the nameplate side faces downwards.
- Attach the rubber pads onto the small holes at the bottom of the breakout gateway, and maintain a minimum of 10 cm around the device.
- Do not place heavy things on the device.

EMC Grounding

A proper grounding system is the basis for stable and reliable running and is indispensable for protection against lightning and interference. Carefully check the grounding conditions at the installation site according to the grounding specifications, and complete grounding properly based on the actual situation.

- Safe Grounding

Ensure that the cabinet and power distribution device are securely grounded when the device uses an AC power supply. Otherwise, electric shock may occur when the insulation resistance between the power supply inside the device and the chassis becomes small.



Caution The building should provide protective grounding to ensure that the device can be properly grounded.

- Lightning Grounding

The lightning protection system of facilities is standalone, and is composed of a lightning rod, a down conductor, and a connector connected to the grounding system. The grounding system is typically used as the reference point for power supply and for safe grounding of the cabinet. Lightning grounding is required only by facilities and is not required by the device.

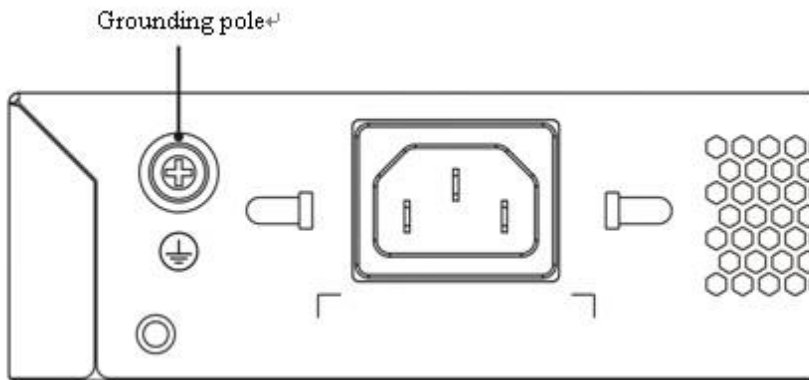
- EMC Grounding

Grounding for electromagnetic compatibility (EMC) includes shielded grounding, filter grounding, noise and interference suppression, and level reference. All the above constitute the comprehensive grounding requirements.

The grounding resistance should be smaller than 1 ohm. The grounding terminal on the cabinet or workbench should be properly grounded before device running.

The EG series devices are equipped with a grounding pole at the rear panel, as shown in Figure 3-2.

Figure 3-2 EMC Grounding



Procedure

- (1) Remove the screw from the grounding terminal of the device.
- (2) Align the M4 end of the grounding cable with the screw hole of the grounding terminal, and fasten the screw.
- (3) Connect the M6 end of the grounding cable to the grounding terminal of the cabinet or workbench.

Follow-up Procedure

After connecting the grounding cable, check the following items:

- The grounding cable is securely connected to the grounding terminal.
- Use the ohm mode of a multimeter to measure the resistance between the grounding terminal and the grounding point. The grounding resistance is less than 1 ohm.

Installing Power Cables

The requirements of Ruijie EG series breakout gateway products on AC power supply are described below (refer to *Product Overview* for detailed parameters):

100–240 V / 50–60 Hz.

Breakout gateway uses 3-conductor power cables. You are suggested to use a single-phase 3-conductor outlet or a multifunction microcomputer outlet with neutral connector. The neutral point of the power supply shall be securely grounded in the building. In most buildings, the neutral point of a power supply has been grounded during the construction. You need to make sure the power supply is properly grounded, and the grounding resistance is less than 1 ohm.

Please take the following steps:

- Plug one end of the power cable into the power socket on the backpanel of a breakout gateway, and plug the other end into the AC power supply outlet.
- Check whether the power LED on the front panel of the breakout gateway lights up or not. The LED indicator will light up if the power supply is properly connected.

Connecting Console

Ruijie EG series breakout gateway provides an EIA/TIA-232 asynchronous serial console port, through which the user can complete the local configuration of the breakout gateway. The attributes of a console are shown in Table 3-1. In case of WEB based configuration, the console port will be of no use.

■ Table 3-1 Console Connection:

Parameter	Description
Connector	RJ-45
Interface Standard	Asynchronous EIA/TIA-232
Baud Rate	Supporting 9600 bps (default), 57600 bps and 115200 bps
Services Supported	1. Command line interface 2. Connection with character terminal 3. Provision of terminal access service as an asynchronous interface

You can configure the console port of a breakout gateway based on the following steps:

Connect one end of the enclosed configuration cable to the console port of device and the other end to the DB-9 male interface of the microcomputer used for configuring the device.

Checking after the Installation

After completing the mechanical installation of breakout gateway, perform the following checks before powering on the device:

- If the device is installed in a cabinet, check whether the angle bar for device installation is steady. If the device is installed on the workbench, check whether sufficient room is reserved around the device to ensure heat elimination and whether the workbench is steady.
- Check whether the power supply meets the requirements.
- Check whether the earth wire of device is properly connected.
- Check whether the device is connected correctly to the configuration terminal.

Quick Configuration

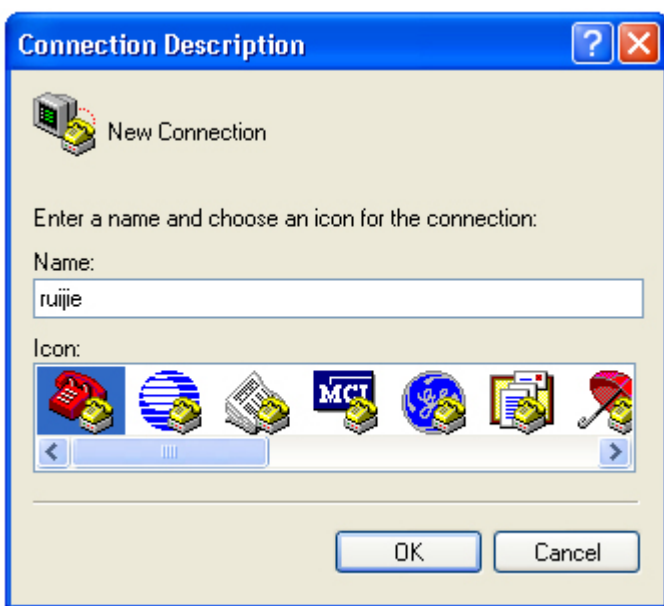
Establishing Configuration Environment

When the breakout gateway is used for the first time, you must configure the breakout gateway via the console port as follows:

- Step 1: Connect the serial port of a character terminal or a microcomputer to the console port (or configuration port or control panel port) of a breakout gateway via a standard RS232 cable.
- Step 2: Configure the communication parameters of the terminal. If you use a microcomputer, you need to run the terminal emulator like the Hyperterm program provided by Windows operating system. We will describe the operating procedures by taking the example of Hyperterm.

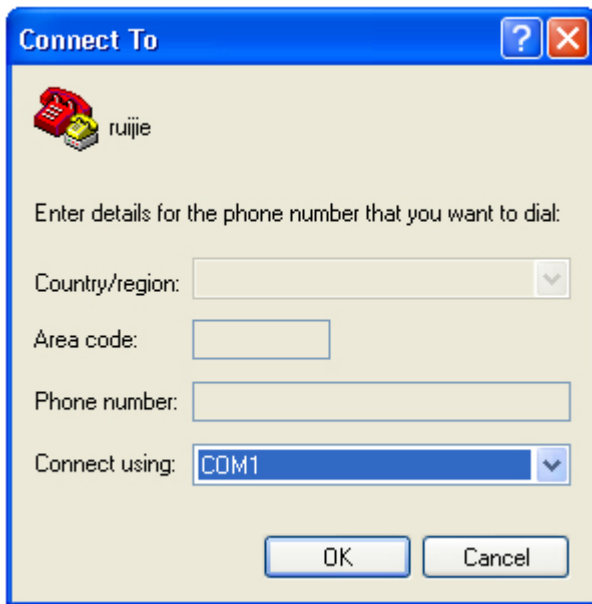
Run Hyperterm software and establish a new connection, as shown in Figure 4-1.

Figure 4-1 Establish a Connection



- 1) Select the serial port connecting with the console port of the breakout gateway, as shown in Figure 4-2.

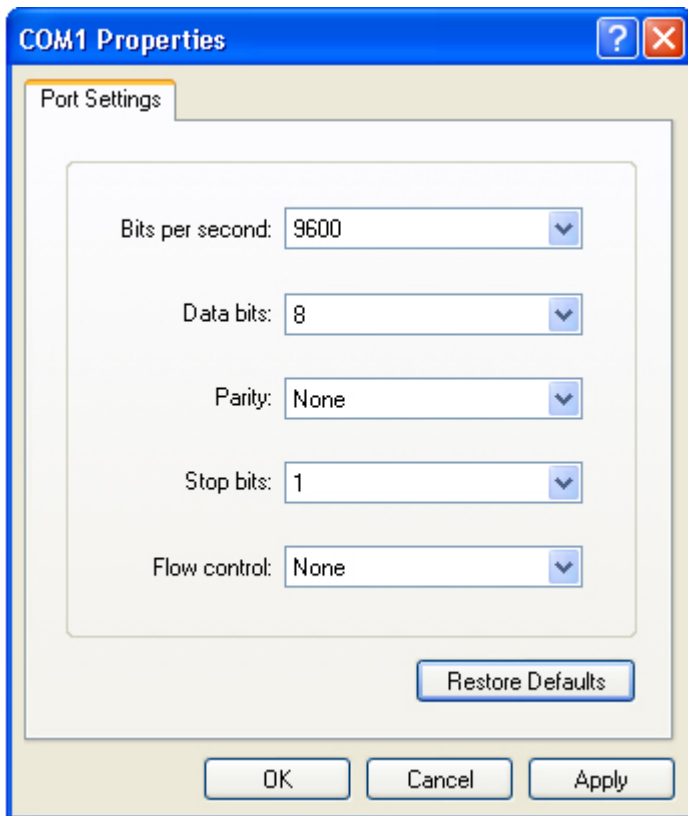
Figure 4-2 Select the Serial Port



2) Configure the communication parameters:

- Bits per second: 9600
- Data bit: 8
- Parity check: None
- Stop bit: 1
- Flow control: None

Figure 4-3 Configure the Parameters of the Serial Port



- 3) Choose **File > Attribute > Setting** and select the terminal emulation type of VT100
- 4) After establishing the configuration environment, you can then power on the breakout gateway.

Power-on Startup

Checks before Power-on

Before power-on, perform the following checks on the breakout gateway:

- Whether the power cable and the ground wire are properly connected.
- Whether the power voltage is consistent with the requirement of the breakout gateway.
- Whether the configuration cable is properly connected, and whether the microcomputer or terminal for gateway configuration is started or configured.

Before powering on the breakout gateway, be aware of the location of the power switch of the breakout gateway to timely cut off power supply in case of any accident.

Powering on the Breakout Gateway

- Turn on the power supply switch of the breakout gateway.
- Turn on the power switch of the breakout gateway and set the power switch to "ON" position.

Checks after Power-on

After the breakout gateway is powered on, check the following items:

- Whether the ventilation system works normally

After power-on, you can hear the fan working; put your hand nearby the vent hole of breakout gateway to feel the airflow.

- Whether the LED indicators on the front panel of the breakout gateway works normally.

Refer to the indicators in *Product Overview*.

- Whether the configuration terminal displays normally

After the breakout gateway is powered on, the terminal will display the software self-extracting information of the breakout gateway.

Startup Process

The following information will be displayed when the breakout gateway is started for the first time:

```
*****
System bootstrap ...
Boot Version: RGOS 10.3(4), Release(53498)
Nor Flash ID: 0x00010049, SIZE: 2097152Bytes
MTD_DRIVER-5-MTD_NAND_FOUND: 1 NAND chips(chip size : 33554432) detected
MTD_DRIVER-5-MTD_NAND_FOUND: 1 nand chip(s) found on the target.
Press Ctrl+C to enter Boot Menu .....
Main Program File Name rgos.bin, Load Main Program ...

Executing program, launch at: 0x00010000
Ruijie General Operating System Software
Release Software (tm), RGOS 10.3(4), Release(53498), Compiled Fri Apr 3 08:45:59 CST 2009 by ngcf31

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00:00:00:00: %MTD_DRIVER-5-MTD_NAND_FOUND: 1 NAND chips(chip size : 33554432) detected
00:00:00:00: %MTD_DRIVER-5-MTD_NAND_FOUND: 1 nand chip(s) found on the target.
00:00:00:17: %LINK-5-CHANGED: Interface FastEthernet 0/1, changed state to up
00:00:00:17: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet 0/1, changed state to up
00:00:00:17: %LINK-5-CHANGED: Interface FastEthernet 0/0, changed state to up
00:00:00:17: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet 0/0, changed state to up
00:00:00:31: %SYS-5-COLDSTART: System coldstart.
Ruijie>
```

After the startup, you can configure the breakout gateway.



Note The above startup information is for reference only. Breakout gateway with different hardware configurations or software versions will display different startup information.



Note In case of using the breakout gateway for the first time, you are advised to use a configuration function to configure the basic parameters of the breakout gateway.

Configuring Breakout Gateway

To use the breakout gateway, you need to properly configure the breakout gateway as required. Refer to the relevant configuration guide and command reference for details about breakout gateway configuration.

Troubleshooting

Power Supply

Refer to *Product Overview* for the normal state descriptions of LED indicators. If abnormality occurs, perform the following checks:

- Whether the power switch is turned on.
- Whether the power supply of the breakout gateway is turned on.
- Whether the power cable is properly connected.
- Whether the power supply to the breakout gateway meets relevant requirements.



Caution Do not plug or pull the power cable when the device is powered on. If everything is ok but the PWR LED still does not light up, contact with a local distributor or technical support personnel.

Configuration System

After the breakout gateway is powered on, the terminal will display the messages described in “Starting and Configuring the Breakout Gateway” section during the startup process if the system works normally. If the configuration system fails, the terminal may display nothing or illegible characters.

If the terminal displays nothing, please check:

- Whether the power system works normally.
- Whether the console port cable is properly connected.

If everything is OK and the terminal still displays nothing, the configuration cable may be damaged or the terminal parameters may be improperly configured. Adjust the parameters of the terminal.

If the terminal displays illegible characters, the terminal parameters may be improperly configured. Confirm the following terminal parameters:

- Bits per second: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None
- Terminal emulation: VT100



Note If the parameters of the gateway console have been modified, the terminal will display nothing.
