Ruijie RG-EasyGate Series Gateways

Hardware Installation and Reference Guide V1.50

Copyright Statement

Ruijie Networks©2018

Ruijie Networks reserves all copyrights of this document. Any reproduction, excerption, backup, modification, transmission, translation or commercial use of this document or any portion of this document, in any form or by any means, without the prior written consent of Ruijie Networks is prohibited.

Exemption Statement

This document is provided "as is". The contents of this document are subject to change without any notice. Please obtain the latest information through the Ruijie Networks website. Ruijie Networks endeavors to ensure content accuracy and will not shoulder any responsibility for losses and damages caused due to content omissions, inaccuracies or errors.

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

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

Ruijie EG series breakout gateway employs the global-leading semiconductor technologies and communication control technologies, and is an independently developed data communication product of Ruijie Networks with independent intellectual property right. The breakout gateway products of Ruijie are completely developed as per international standards and are similar to the mainstream breakout gateway products in the international market. By reading this manual, network administrator being familiar with mainstream breakout gateway configuration commands can easily use this product without training.

Ruijie EG Series Breakout Gateways

Ruijie EG2000CE Breakout Gateway

Appearance of Ruijie EG2000CE Breakout Gateway

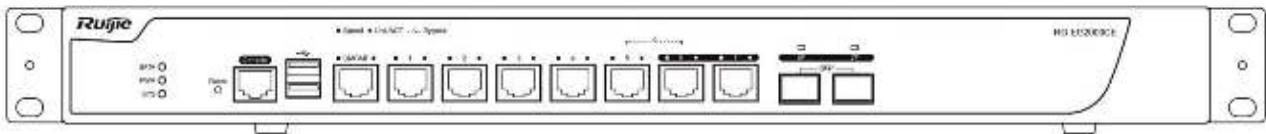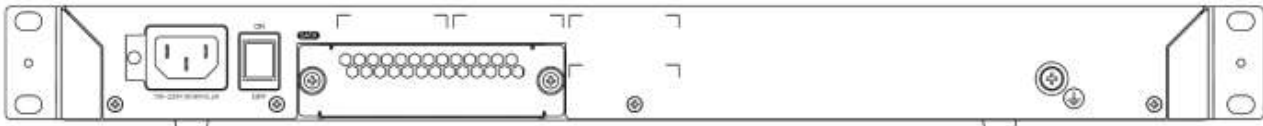Figure 1-11 Front Panel of Ruijie EG2000CE Breakout Gateway

Figure 1-12 Backpanel of Ruijie EG2000CE Breakout Gateway

Specifications of Ruijie EG2000CE Breakout Gateway

■ Table 1-11 Specifications of Ruijie EG2000CE Breakout Gateway

Item	Description
Storage	DDR3 SDRAM: 2 GB
	BOOTROM: 8 MB
	FLASH: 128 MB (1.10 version or lower) 512 MB (1.20 version or higher)
	SATA Hard Disk: 500 GB
I/O Setup	WAN port: two default 10/100/1000 M self-adaptive Ethernet copper ports (0/6, 0/7), automatic recognition of network cable and cross-over cable. Each WAN port is fiber/copper combo port and supports 1000BASE-SX/LX/ZX mini GBIC optical module and GE-SFP-LX20/LH40-BIDI optical module. LAN port: six default 10/100/1000 M self-adaptive fast Ethernet

	copper ports (0/0, 0/1, 0/2, 0/3, 0/4, 0/5), automatic recognition of network cables and cross-over cables. All Ethernet ports can be switched between WAN mode and LAN mode.
	One management port (in bridge mode)
	One console port
	Two USB ports
BYPASS	BYPASS ports: 0/5-0/6 Supports the two modes of power-off/power-on BYPASS and the main program configured BYPASS.
Hardware Disk Module	One hardware disk module is supplied.
Hot-swapping	Does not Support hardware disk module hot swapping.
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX, 1000BASE-SX/LX/ZX Console port: RS-232
Dimension (W x H x D)	440 mm x 43.6 mm x 200 mm (excluding the foot pad)
Voltage	100–240 V; 50/60 Hz
Power Consumption	Less than 40 W
Working Environment	Temperature: -5°C to +50°C (23°F to 122°F)
	Humidity: 10% to 90% RH (non-condensing)

Note — Since there are numerous types of U-disk, we cannot ensure that the system supports all of them. The Kingston 2G U-disk with FAT32 are recommended to be used.

Caution — For a hardware disk is contained in the package, please avoid the vibration and collision in the process of moving and usage.

Caution — When the EG series hosts are in hardware BYPASS mode, the two Ethernet ports connecting with the pair of BYPASS ports of the EG series products are directly connected via network cables actually. As a result, prevent them from being in the same VLAN to avoid broadcast storm.

LED Indicators of Ruijie EG2000CE Breakout Gateway

■   Table 1-12 LED Indicators of Ruijie EG2000CE Breakout Gateway

LED Indicator	Working status
PWR	Solid green indicates the power supply is working properly. Off indicates the power supply is off or the power supply is faulty.
SYS	Blinking green indicates the system is being initialized. Solid green indicates system initialization has completed. Solid red indicates system warning.

SATA	Solid green indicates the SATA hard disk is inserted. Blinking green indicates data reading/writing.
Link/ACT	Solid green indicates the 10/100/1000 M link that the port connects to is up. Blinking green indicates data is being transceived at the port.
Speed	Solid orange indicates data at a rate of 1000 M is being transceived at the port. Off indicates data at a rate of 10 M or 100 M is being transceived at the port.
Optical port indicators of 6F-7F Gigabit Ports	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.

Ruijie EG2000XE Breakout Gateway

Appearance of Ruijie EG2000XE Breakout Gateway

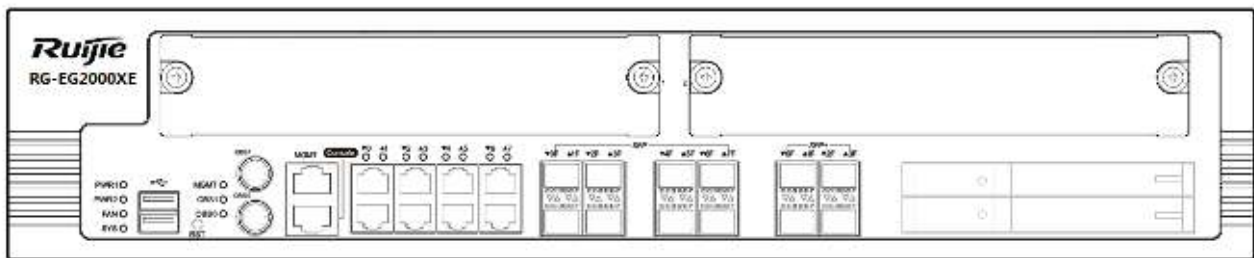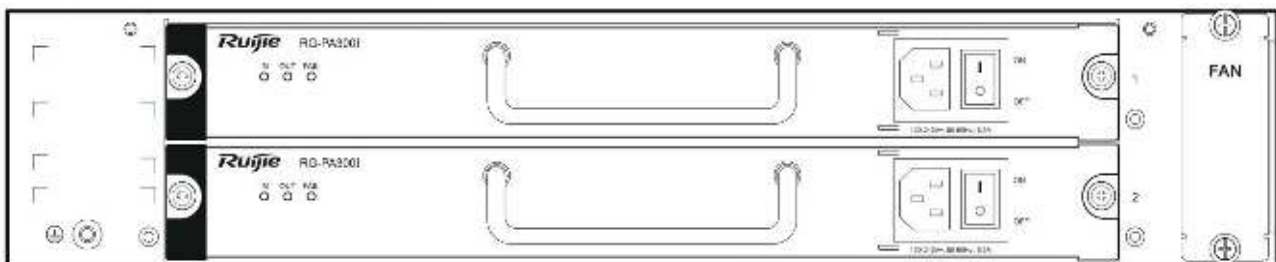Figure 1-13 Front Panel of Ruijie EG2000XE Breakout Gateway

Figure 1-14 Backpanel of Ruijie EG2000XE Breakout Gateway

Specifications of Ruijie EG2000XE Breakout Gateway

■   Table 1-13 Specifications of Ruijie EG2000XE Breakout Gateway

Item	Description
Storage	DDR3 SDRAM: 16 GB
	BOOTROM: 8 MB
	FLASH: 512 MB
	SATA Hard Disk: 500 GB
I/O Setup	Gigabit Ethernet interface: Supports 8 pairs of fiber/copper combo ports and all of them

	can be switched between the WAN mode and LAN mode. By default, the interface 0/1, 0/3, 0/5, 0/7 are WAN ports, while the interface 0/0, 0/2, 0/4, 0/6 are LAN ports. The copper ports are 10/100/1000 M adaptive and support automatic recognition of the network cables and the cross-over cables. The fiber ports are supported on the 1000BASE-SX/LX/ZX mini GBIC module and GE-SFP-LX20/LH40-BIDI optical module. There are four 10G optical ports. The 10G optical port 2/ the Gigabit port 0/0, 0/1, 0/2 and 0/3 are combo ports. The 10G optical port 3/the Gigabit port 0/4, 0/5, 0/6 and 0/7 are combo ports. The 10G optical ports are supported on the XG-SFP-SR-MM850, XG-SFP-LR-SM1310 and XG-SFP-ER-SM1550 optical modules.
	One management port, which supports 10/100/1000 M adaptive and automatic recognition of the network cables and the cross-over cables.
	One console port
	Two USB ports
BYPASS	BYPASS ports: Supports two pairs of the interfaces: 0/0-0/1 and 0/2-0/3; Supports the two modes of power-off, power-on BYPASS and the main program configured BYPASS. Supports fiber BYPASS. (You need to purchase the fiber BYPASS device.)
Power Module	Supports two RG-PA300I power modules. Two RG-PA300I power modules are supplied.
Hardware Disk Module	One hardware disk is provided. And this hardware disk is supposed to be installed in the SATA slot.
Hot-swapping	Supports fan tray hot swapping. Supports power supply hot swapping.
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX, 1000BASE-SX/LX/ZX Console port: RS-232
Dimension (W x H x D)	440 mm x 88.1 mm x 560 mm (excluding the foot pad)
Voltage	100–240 V; 50/60 Hz
Power Consumption	Less than 100 W
Working Environment	Temperature: 0°C to 50°C (32°F to 122°F)
	Humidity: 10% to 90% RH (non-condensing)

Note Since there are numerous types of U-disk, we cannot ensure that the system supports all of them. The Kingston 2G U-disk with FAT32 are recommended to be used.

⚠️ **Caution** For the RG-EG2000XE product has the built-in hardware disk, please avoid the vibration and collision in the process of moving and usage.

⚠️ **Caution** Format a new hardware disk before installing it.

⚠️ **Caution** When the EG series hosts are in hardware BYPASS mode, the two Ethernet ports connecting with the pair of BYPASS ports of the EG series products are directly connected via network cables actually. As a result, prevent them from being in the same VLAN to avoid broadcast storm.

LED Indicators of Ruijie EG2000XE Breakout Gateway

■ Table 1-14 LED Indicators of Ruijie EG2000XE Breakout Gateway

LED Indicator	Working status
PWR1, PWR2	Solid green indicates the power module is installed and working properly. Off indicates the power module is not installed. Solid red indicates the power module is faulty or not powered on.
SYS	Blinking green indicates the system is being initialized. Solid green indicates system initialization has completed. Solid red indicates system warning.
Fan	Solid green indicates the fan is installed and working properly. Off indicates the fan is not installed. Solid red, blinking red or blinking green indicates the fan is faulty.
SATA	Solid green indicates the SATA hard disk is inserted. Blinking green indicates data reading/writing.
MGMT	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.
Indicators of 0-7 Gigabit Copper Indicators	Solid green indicates the 10/100/1000 M link that the port connects to is up. Blinking green indicates data is being transceived at the port.
Indicators of 0F-7F Gigabit Optical Ports	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.
OBS0/OBS1	Solid green indicates the power supply is working. Off indicates no power supply.

Ruijie EG2000UE Breakout Gateway

Appearance of Ruijie EG2000UE Breakout Gateway

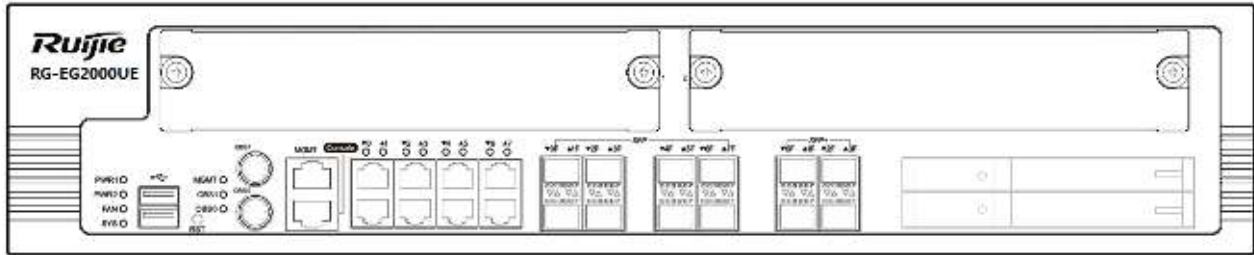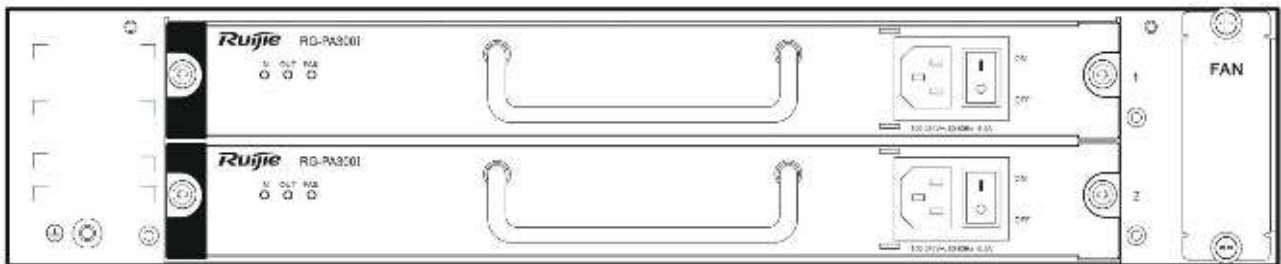Figure 1-15 Front Panel of Ruijie EG2000UE Breakout Gateway

Figure 1-16 Backpanel of Ruijie EG2000UE Breakout Gateway

Specifications of Ruijie EG2000UE Breakout Gateway

■ Table 1-15 Specifications of Ruijie EG2000UE Breakout Gateway

Item	Description
Storage	DDR3 SDRAM: 16 GB
	BOOTROM: 8 MB
	FLASH: 512 MB
	SATA Hard Disk: 500 GB
I/O Setup	Gigabit Ethernet interface: Supports 8 pairs of fiber/copper combo ports and all of them can be switched between the WAN mode and LAN mode. By default, the interface 0/1, 0/3, 0/5, 0/7 are WAN ports, while the interface 0/0, 0/2, 0/4, 0/6 are LAN ports. The copper ports are 10/100/1000 M adaptive and support automatic recognition of the network cables and the cross-over cables. The fiber ports are supported on the 1000BASE-SX/LX/ZX mini GBIC module and GE-SFP-LX20/LH40-BIDI optical module. There are four 10G optical ports. The 10G optical port 2/ the Gigabit port 0/0, 0/1, 0/2 and 0/3 are combo ports. The 10G optical port 3/the Gigabit port 0/4, 0/5, 0/6 and 0/7 are combo ports. The 10G optical ports are supported on the XG-SFP-SR-MM850, XG-SFP-LR-SM1310 and XG-SFP-ER-SM1550 optical modules.
	One management port, which supports 10/100/1000 M adaptive and automatic recognition of the network cables and the cross-over cables.

	One console port
	Two USB ports
BYPASS	BYPASS ports: Supports two pairs of the interfaces: 0/0-0/1 and 0/2-0/3; Supports the two modes of power-off/power-on BYPASS and the main program configured BYPASS. Supports fiber BYPASS. (you need to purchase the fiber BYPASS device.)
Power Module	Supports two RG-PA300I power modules. Two RG-PA300I power modules are supplied.
Hardware Disk Module	One hardware disk is provided. And this hardware disk is supposed to be installed in the SATA slot.
Hot-swapping	Supports fan tray hot swapping. Supports power supply hot swapping.
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX, 1000BASE-SX/LX/ZX Console port: RS-232
Dimension (W x H x D)	440 mm x 88.1 mm x 560 mm (excluding the foot pad)
Voltage	100–240 V; 50/60 Hz
Power Consumption	Less than 100 W
Working Environment	Temperature: 0°C to 50°C (32°F to 122°F)
	Humidity: 10% to 90% RH (non-condensing)

Note Since there are numerous types of U-disk, we cannot ensure that the system supports all of them. The Kingston 2G U-disk with FAT32 are recommended to be used.

Caution For the RG-EG2000UE product has the built-in hardware disk, please avoid the vibration and collision in the process of moving and usage.

Caution Format a new hardware disk before installing it.

Caution When the EG series hosts are in hardware BYPASS mode, the two Ethernet ports connecting with the pair of BYPASS ports of the EG series products are directly connected via network cables actually. As a result, prevent them from being in the same VLAN to avoid broadcast storm.

LED Indicators of Ruijie EG2000UE Breakout Gateway

■ Table 1-16 LED Indicators of Ruijie EG2000UE Breakout Gateway

LED Indicator	Working status
PWR1, PWR2	Solid green indicates the power module is installed and working properly. Off indicates the power module is not installed. Solid red indicates the power module is faulty or not powered on.
SYS	Blinking green indicates the system is being initialized. Solid green indicates system initialization has completed. Solid red indicates system warning.
Fan	Solid green indicates the fan is installed and working properly. Off indicates the fan is not installed. Solid red, blinking red or blinking green indicates the fan is faulty.
SATA	Solid green indicates the SATA hard disk is inserted. Blinking green indicates data reading/writing.
MGMT	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.
Indicators of 0-7 Gigabit Copper Indicators	Solid green indicates the 10/100/1000 M link that the port connects to is up. Blinking green indicates data is being transceived at the port.
Indicators of 0F-7F Gigabit Optical Ports	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.
OBS0/OBS1	Solid green indicates the power supply is working. Off indicates no power supply.

Ruijie EG2000F Breakout Gateway

Appearance of Ruijie EG2000F Breakout Gateway

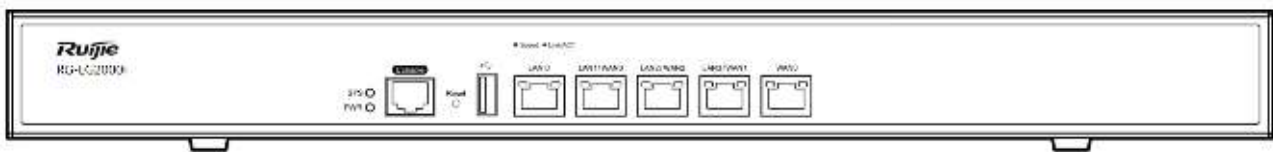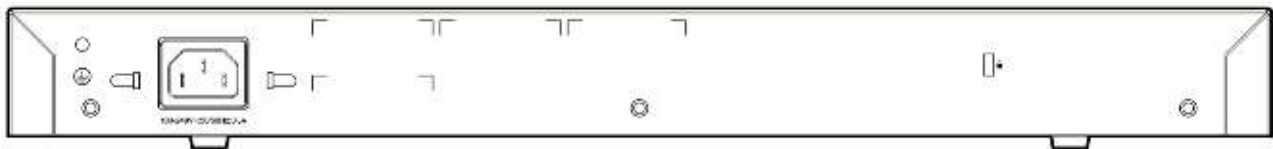Figure 1-17 Front Panel of Ruijie EG2000F Breakout Gateway

Figure 1-18 Backpanel of Ruijie EG2000F Breakout Gateway

Specifications of Ruijie EG2000F Breakout Gateway

■   Table 1-17 Specifications of Ruijie EG2000F Breakout Gateway

Item	Description
Storage	DDR3 SDRAM: 512 MB
	eMMC: 4 GB

	BOOTROM: 2 MB
I/O Setup	WAN port: two default 10/100/1000 M self-adaptive Ethernet copper ports, automatic recognition of network cable and cross-over cable. WAN1 port supports WAN-LAN mode switchover. LAN port: three default 10/100/1000 M self-adaptive fast Ethernet copper ports, automatic recognition of network cables and cross-over cables. LAN1 and LAN2 ports support WAN-LAN mode switchover.
	One console port
	One USB port
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX, Console port: RS-232
Dimension (W x H x D)	440 mm x 43.6 mm x 200 mm (excluding the foot pad)
Voltage	100–240 V; 50/60 Hz
Power Consumption	Less than 20 W
Working Environment	Temperature: -5°C to +45°C (23°F to 113°F)
	Humidity: 10% to 90% RH (non-condensing)

Note Since there are numerous types of U-disk, we cannot ensure that the system supports all of them. The Kingston U-disk with FAT32 are recommended to be used.

LED Indicators of Ruijie EG2000F Breakout Gateway

■ Table 1-18 LED Indicators of Ruijie EG2000F Breakout Gateway

LED Indicator	Working status
PWR	Solid green indicates the power module is installed and working properly. Off indicates the power module is not installed.
SYS	Blinking green indicates the system is being initialized. Solid green indicates system initialization has completed.
Link/ACT	On indicates the link that the port connects to is up. Blinking indicates data is being transceived at the port.
Speed	On indicates the 1000 M link that the port connects to is up. Off indicates the 10/100 M link that the port connects to is up, or no port is connected.

Ruijie EG3000XE Breakout Gateway

Appearance of Ruijie EG3000XE Breakout Gateway

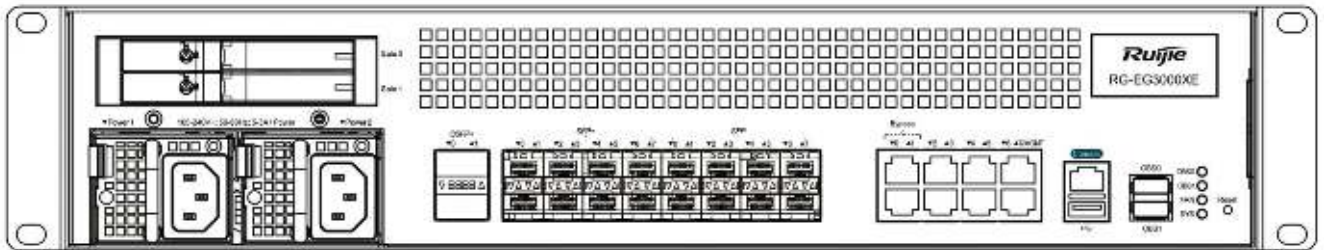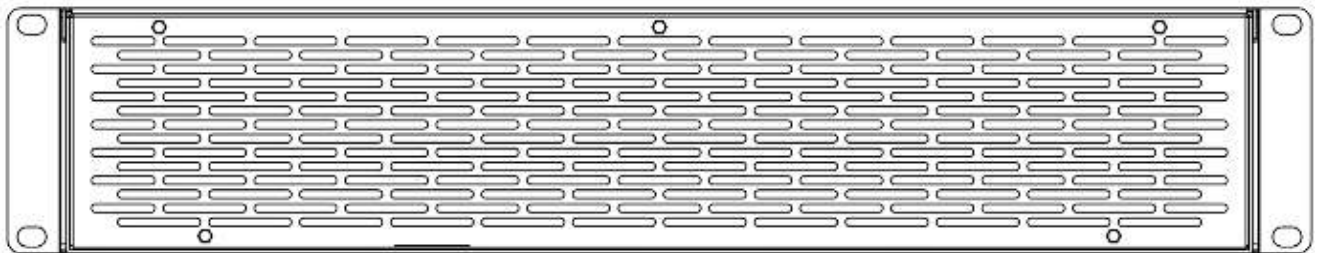Figure 1-19 Front Panel of Ruijie EG3000XE Breakout Gateway

Figure 1-20 Back Panel of Ruijie EG3000XE Breakout Gateway

Specifications of Ruijie EG3000XE Breakout Gateway

■ Table 1-19 Specifications of Ruijie EG3000XE Breakout Gateway

Item	Description
Storage	DDR4 SDRAM: 32GB
	BOOTROM: 8 MB
	eMMC: 16GB+64GB
	Hard Disk: (Optional) Up to two hard disks are supported. By default, no hard disks are supplied.
I/O Setup	Gigabit Ethernet interface: Supports 8 pairs of fiber/copper combo ports and all of them support WAN/LAN switchover. By default, the interface 0/1, 0/3, 0/5, 0/7 are WAN ports, while the interface 0/0, 0/2, 0/4, 0/6 are LAN ports. The copper ports are 10/100/1000 M adaptive and support automatic recognition of the network cables and the cross-over cables. The fiber ports are supported on the 1000BASE-SX/LX/ZX mini GBIC module and GE-SFP-LX20/LH40-BIDI optical module. There are eight 10G optical ports. Those ports are supported on the XG-SFP-SR-MM850, XG-SFP-LR-SM1310 and XG-SFP-ER-SM1550 optical modules, XG-SFP-CU3M copper cables, XG-SFP-CU1M copper cables and BIDI optical modules.

	There are two 40G optical ports. Those ports are supported on 40G-QSFP-SR-MM850, 40G-QSFP-LSR-MM850 and 40G-QSFP-LR4-SM1310 optical modules, and 40G-QSFP-STACK3M cables.
	One management port, which is the GE 0/7 combo port. The MGMT port supports 10/100/1000 M adaptive and automatic recognition of the network cables and the cross-over cables.
	One console port
	One USB2.0 port
BYPASS	BYPASS ports: Supports one pair of the interfaces: 0/0-0/1. In bridge mode, automatic BYPASS during power-off and power-on mode and hardware BYPASS in the main program are supported. Fiber BYPASS: There are two pairs of BYPASS ports. USB ports are connected to the OBS device.
Power Module	Supports two YM-2301EDR power modules. Two YM-2301EDR power modules are supplied.
Hardware Disk Module	Up to two hardware disks are supported. No hardware disk is provided.
Expansion Module	Not supported
Hot-swapping	Supports fan tray hot swapping. Supports power supply hot swapping.
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX, 1000BASE-SX/LX/ZX, 10GBASE-SR/LR/ZR, 40GBASE-SR/LR/ZR
	Console port: RS-232
Dimension (W x H x D)	440mm x 88.1mm x 550mm (excluding the foot pad)
Voltage	100VAC to 240VAC; 50/60 Hz, 5A to 3A
Power Consumption	Less than 150W
Rated Output of Power Modules	300W per module, two modules in total, supporting current sharing
Working Environment	Temperature: 0°C to 45°C (32°F to 113°F)
	Humidity: 10% to 90% RH (non-condensing)

Note   Not all USB disks are supported. The Kingston USB disk with FAT 32 is recommended.

Note   The fiber BYPASS device needs to be bought separately.

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

⚠ Caution   Products should be transported in original packets.

⚠ Caution   Format a hardware disk to *.EXT3* before installing it.

LED Indicators of Ruijie EG3000XE Breakout Gateway

■   Table 1-20 LED Indicators of Ruijie EG3000XE Breakout Gateway

LED Indicator	Working status
PWR	Off indicates the power module is not installed or not working. Blinking red indicates that the power module is not receiving AC. Blinking green indicates that the power module is installed but not working. Solid green indicates that the power module is installed and working properly. Solid red indicates that the power module is not powered on. Alternately blinking red and green warns that the power module is faulty.
SYS	Blinking green indicates the system is being initialized. Solid green indicates system initialization has completed. Solid red indicates system warning.
Fan	Solid green indicates the fan is installed and working properly. Solid red indicates the fan is faulty or not installed.
Indicators of 0-7 Gigabit Copper Indicators	Solid orange indicates the 10/100/1000 M link that the port connects to is up. Blinking orange indicates the port is transceiving data at 1,000Mbps. Solid green indicates the 10/100 M link that the port connects to is up. Blinking green indicates the port is transceiving data at 100Mbps.
Indicators of 0-7 Gigabit/0-7 10G/0-1 40G Optical Ports	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.
OBS	Solid green indicates the power supply is working. Off indicates no power supply.

Ruijie EG3000UE Breakout Gateway

Appearance of Ruijie EG3000UE Breakout Gateway

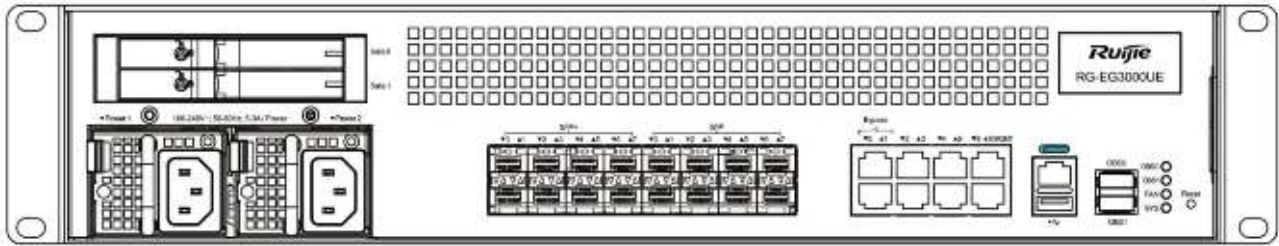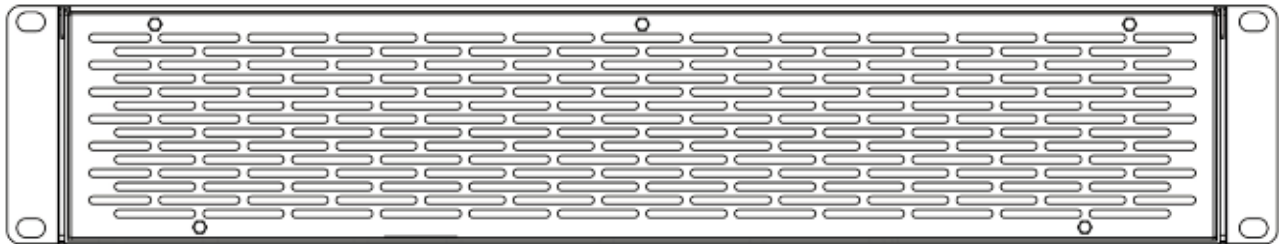Figure 1-21 Front Panel of Ruijie EG3000UE Breakout Gateway

Figure 1-22 Back Panel of Ruijie EG3000UE Breakout Gateway

Specifications of Ruijie EG3000UE Breakout Gateway

■ Table 1-21 Specifications of Ruijie EG3000UE Breakout Gateway

Item	Description
Storage	DDR4 SDRAM: 32GB
	BOOTROM: 8 MB
	eMMC: 16GB+64GB
	Hard Disk: (Optional) Up to 2 hard disks are supported. By default, no hard disks are supplied.
I/O Setup	Gigabit Ethernet interface: Supports 8 pairs of fiber/copper combo ports and all of them support WAN/LAN switchover. By default, the interface 0/1, 0/3, 0/5, 0/7 are WAN ports, while the interface 0/0, 0/2, 0/4, 0/6 are LAN ports. The copper ports are 10/100/1000 M adaptive and support automatic recognition of the network cables and the cross-over cables. The fiber ports are supported on the 1000BASE-SX/LX/ZX mini GBIC module and GE-SFP-LX20/LH40-BIDI optical module. There are eight 10G optical ports. Those ports are supported on the XG-SFP-SR-MM850, XG-SFP-LR-SM1310 and XG-SFP-ER-SM1550 optical modules, XG-SFP-CU3M copper cables, XG-SFP-CU1M copper cables and BIDI optical modules.

	One management port, which is the GE 0/7 combo port. The MGMT port supports 10/100/1000 M adaptive and automatic recognition of the network cables and the cross-over cables.
	One console port
	One USB2.0 port
BYPASS	BYPASS ports: Supports one pair of the interfaces: 0/0-0/1. In bridge mode, automatic BYPASS during power-off and power-on mode and hardware BYPASS in the main program are supported. Fiber BYPASS: There are two pairs of BYPASS ports. USB ports are connected to the OBS device.
Power Module	Supports two YM-2301EDR power modules. Two YM-2301EDR power modules are supplied.
Hardware Disk Module	Up to two hardware disks are supported. No hardware disk is provided.
Expansion Module	Not supported
Hot-swapping	Supports fan tray hot swapping. Supports power supply hot swapping.
Interface Standard	Ethernet: 10Base-T/100Base-TX/1000Base-TX, 1000BASE-SX/LX/ZX, 10GBASE-SR/LR/ZR
	Console port: RS-232
Dimension (W x H x D)	440mm x 88.1mm x 550mm (excluding the foot pad)
Voltage	100VAC to 240VAC; 50/60 Hz, 5A to 3A
Power Consumption	Less than 150W
Rated Output of Power Modules	300W per module, two modules in total, supporting current sharing
Working Environment	Temperature: 0°C to 45°C (32°F to 113°F)
	Humidity: 10% to 90% RH (non-condensing)

Note   Not all USB disks are supported. The Kingston USB disk with FAT 32 is recommended.

Note   The fiber BYPASS device needs to be bought separately.

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

⚠ Caution   Products should be transported in original packets.

⚠ Caution   Format a hardware disk to *.EXT3* before installing it.

LED Indicators of Ruijie EG3000UE Breakout Gateway

■ Table 1-22 LED Indicators of Ruijie EG3000UE Breakout Gateway

LED Indicator	Working status
PWR	Off indicates the power module is not installed or not working. Blinking red indicates that the power module is not receiving AC. Blinking green indicates that the power module is installed but not working. Solid green indicates that the power module is installed and working properly. Solid red indicates that the power module is not powered on. Alternately blinking red and green warns that the power module is faulty.
SYS	Blinking green indicates the system is being initialized. Solid green indicates system initialization has completed. Solid red indicates system warning.
Fan	Solid green indicates the fan is installed and working properly. Solid red indicates the fan is faulty or not installed.
Indicators of 0-7 Gigabit Copper Indicators	Solid orange indicates the 10/100/1000 M link that the port connects to is up. Blinking orange indicates the port is transceiving data at 1,000Mbps. Solid green indicates the 10/100 M link that the port connects to is up. Blinking green indicates the port is transceiving data at 100Mbps.
Indicators of 0F-7F Gigabit/0F-7F 10G Optical Ports	Solid green indicates the link that the port connects to is up. Blinking green indicates data is being transceived at the port.
OBS	Solid green indicates the power supply is working. Off indicates no power supply.

Modules

RG-PA300I Power Module

Module Appearance and Indicators

Figure 1-23 Appearance of the RG-PA300I Power Module
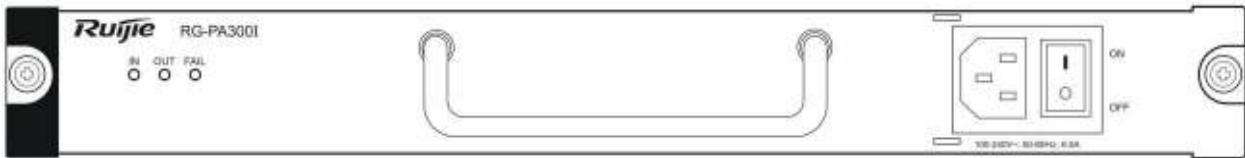
Note RG-PA300I are only applicable to RG-EG1000M, RG-EG2000X, RG-EG2000UE and RG-EG2000XE.

■ Table 1-23 Indicator Description of the RG-PA300I Power Module

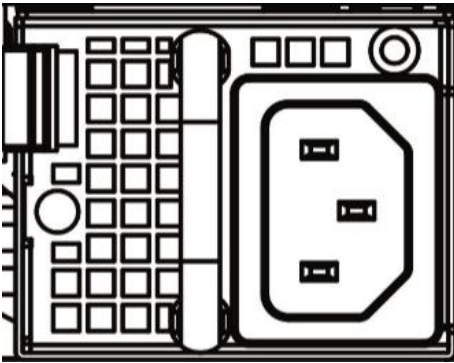| LED Indicator	Working Status
IN	Solid green indicates normal power input. Off indicates abnormal power input.
OUT	Solid green indicates normal power output Off indicates abnormal power output.
FAIL	Off indicates the power supply is working properly. Solid red indicates the abnormal power supply.

Module Attributes

■ Table 1-24 Attribute Description of the RG-PA300I Power Module

Attributes	Description
Rated Input Value	100V to 240 V; 50/60 Hz; 6.5 A
Rated Output Value	12 V: 1A to 25 A 12 V FAN: 0A to 5 A
Rated Output Power	300 W
Hot Swapping	Supported
N+1 Backup	Supported
Power Factor Correction (PFC)	Supported
Protection Features	Input over-voltage and under-voltage protection, output over-voltage protection, over-current protection, short-circuit protection and over-temperature protection.
Communication Features	Supports communication with the host to obtain information about power temperature and output power. It is worth mentioning that the power temperature range is -5ºC to 50ºC (±2ºC)/ 23ºF to 122ºF. The temperature value would be incorrect if it is beyond that range.

RG-YM-2301EDR Power Module

Module Appearance and Indicators

Figure 1-24 Appearance of the RG-2301EDR Power Module

Note RG-YM-2301EDR is only applicable to RG-EG3000XE and RG-EG3000UE.

■ Table 1-25 Indicator Description of the RG-2301EDR Power Module

LED Indicator	Working status
PWR	Off indicates the power module is not installed or not working.
	Blinking red indicates that the power module is not receiving AC.
	Blinking green indicates that the power module is installed but not working.
	Solid green indicates that the power module is installed and working properly.
	Solid red indicates that the power module is not powered on.
	Alternately blinking red and green warns that the power module is faulty.

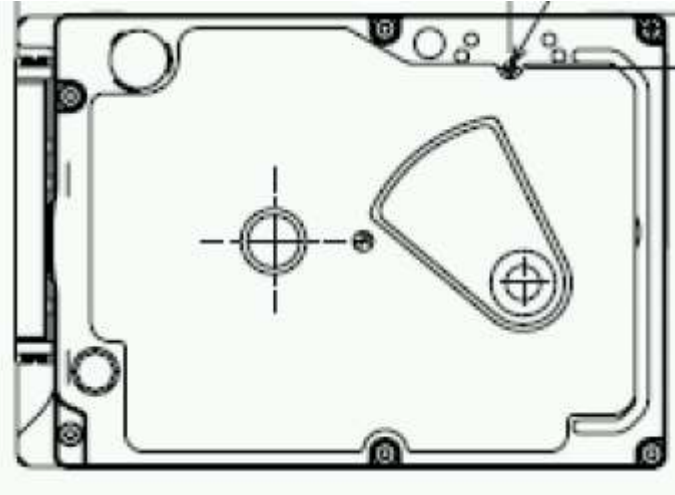## Module Attributes

■ Table 1-26 Attribute Description of the RG-2301EDR Power Module

Attributes	Description
Rated Input Value	100VAC to 240VAC; 50/60Hz; 5A to 3A
Rated Output Value	12V: 24A
	5Vsb: 3A
Rated Output Power	300 W
Hot Swapping	Supported
N+1 Backup	Supported
Power Factor Correction (PFC)	Supported
Protection Features	Input over-voltage and under-voltage protection, output over-voltage protection, over-current protection, short-circuit protection and over-temperature protection.
Communication Features	Supports communication with the host to obtain information about power temperature and output power.

RG-Gateway-HDD-1T Hard Disk

Figure 1-25 Appearance of the RG-Gateway-HDD-1T Hard Disk

Module Attributes

■ Table 1-28 Attribute Description of the RG-Gateway-HDD-1T Hard Disk

Attributes	Description
Applicable Models	RG-EG3000XE, RG-EG3000UE, RG-ACE5000E, RG-ACE3000E, RG-EG2000XE, RG-EG2000UE
Dimensions	2.5 inch, 9mm thick
Type	HDD
Memory	1T
Operational Altitude	0 to 3,000m
Hot Swapping	Hot plugging is supported but hot unplugging is not supported.

Note Software has been installed in the hard disk with the format "*.EXT3*". Therefore, plug and play is allowed for the hard disk.

Note You have to reset the device after inserting a hard disk.

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

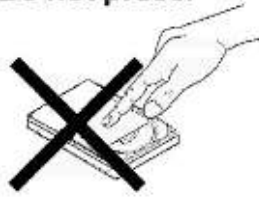Caution Products should be transported in original packets.

Caution Errors might occur if a RG-Gateway-HDD-1T hard disk is used at an altitude over 3,000m.
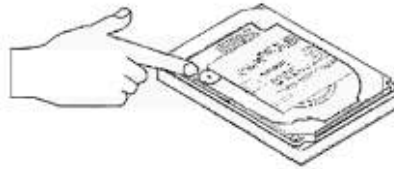
Do not press!

⚠️ Caution   Do not press the cover of a hard disk.

Do not cover this hole

⚠️ Caution   Do not cover the air hole of a hard disk.

⚠️ Caution   Do not toss, jolt, or shake the hard disk.

⚠️ Caution   Do not touch the circuit board.

To install EG2000X/XE/UE, EG3000XE/UE and ACE3000E/5000E series, you do not need to apply screws. Instead, take out the key from the accessory box. Insert the key into the triangular keyhole, then rotate the key by 90 degrees counter-clockwise to open the hard-disk cartridge.

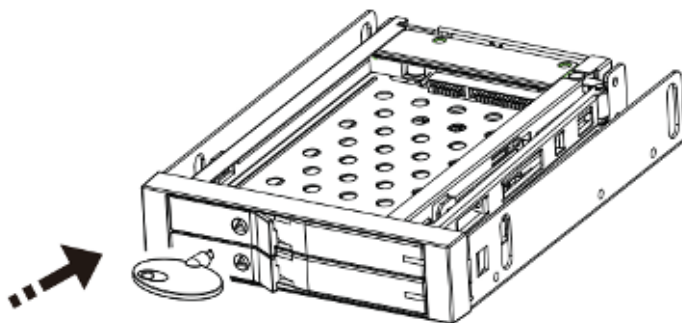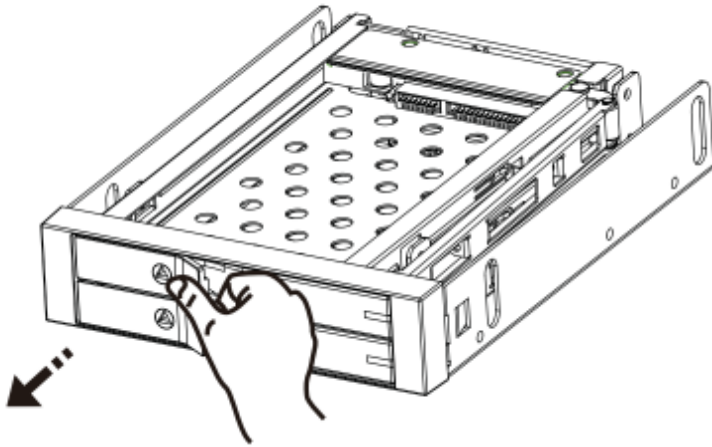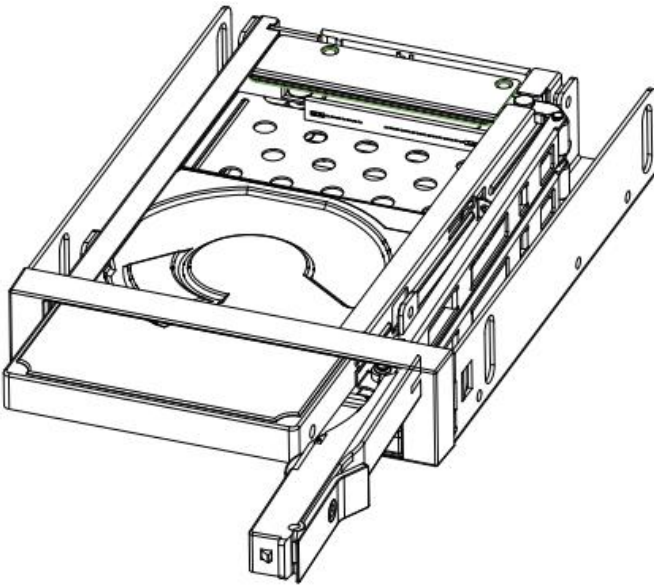Figure 1-26 Inserting the Key into the Triangular Keyhole
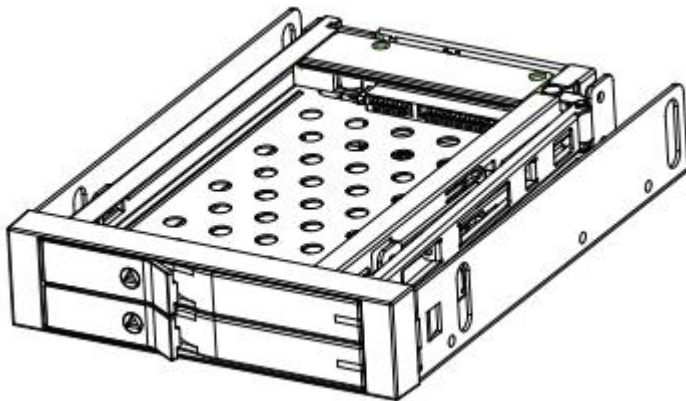
Figure 1-27 Open the Hard-disk Cartridge.

Plug the hard disk into the cartridge, close the cartridge and rotate the key by 90 degrees clockwise.

Figure 1-28 Plugging the Hard Disk

Flugre 1-29 Close the Cartridge

Features of Ruijie EG Series Breakout Gateway

Full Support to Extensive Protocols

- Ruijie EG series breakout gateway is applicable to different network environment as it provides full support to extensive protocols:
- Providing RJ45 port and supporting Ethernet protocol and ARP protocol;
- Supporting TCP/IP protocol stack at the network layer (IP, ICMP, IGMP, TCP, UDP and so on);
- Supporting multiple IP-based dynamic routing protocol such as RIP (V1/V2), OSPF;
- Supporting the network management protocol of SNMP;
- Supporting TELNET;
- Supporting DHCP;
- Supporting PPPoE;
- Supporting asynchronous file transfer protocol of X-MODEM;
- Supporting NAT;
- Supporting policy-based routing;
- Supporting VRRP;
- Supporting L2TP and PPTP;
- Supporting TFTP.

Friendly User Interface

- The standard operation interface allows visual configuration, and each command is accompanied by detailed online help;
- The user manual contains detailed explanation and demonstration of each command, and provides comprehensive fault analysis;
- Both the WEB configuration interface and the standard CLI configuration interface are provided, reducing the costs of study and usage and bringing convenience to maintenance.

Abundant Diagnosis and Management Tools

- Comprehensive debugging and tracking commands are provided, allowing convenient and precise location of various network faults.
- Complete statistics and status information display functions are provided, enabling user to have a clear knowledge of network performance and operating status.
- Supporting multiple terminal login and configuration modes, such as configuration via the console port, login and configuration via TELNET, and configuration via the TFTP server.

Excellent Security

- Adopting the perfect firewall and IP packet filtering technology to implement rigid checking of network address, port number or protocol type.
- PAP and CHAP protocol over PPP protocol.
- Supporting MAC address binding.
- Supporting Network Address Translation (NAT).

Professional Flow Control

■ The gateway product adopts the new-generation DPI engine developed by Ruijie Networks, and is capable of precisely recognizing over 600 protocols including P2P, IM, stock application, stream media, officing and online gaming.

■ Real-time acquisition, monitoring and precise analysis of network flow, achieving the visualization of network operation status, application status and bandwidth usage status. Protocol-based and user-based real-time flow analyzer provides detailed information on source/destination IP address, service port, application protocol, session number and flow size.

■ Supporting user (source IP address), destination IP address, time, protocol and application based flexible blocking and permitting, including: outbound and inbound bandwidth control, session number control and so on.

■ Supporting group object configuration, such as the configuration of user group (IP group) and protocol group (such as P2P protocol group and gaming group), as well as the bandwidth management policy based control of users of the same level and with the same type of application.

URL Filtering and Auditing

■ The independently developed Chinese URL database: The independently developed URL system will constantly collect URL information, and the URL database of Ruijie Networks is divided into 41 categories, with 6 million entries covering almost all websites in Mainland China.

■ Supporting user (source IP address), URL classification and time based flexible blocking and permitting of URL accesses of intranet users.

■ Supporting user (source IP address), URL classification and time based real-time auditing of URL accesses of intranet users and flexible query of audit content.

Easy Upgrade

■ Supporting asynchronous file transfer protocol of X-MODEM, allowing the user to download new versions of upgrade software through Console port under various operating systems (such as Windows 95, Windows NT, UNIX, and DOS).

■ Downloading new versions of software via TFTP protocol.

■ Online upgrade of BOOTROM.

■ Supporting automatic upgrade and upgrade via Web.

High Reliability in Software and Hardware.

■ Supporting bridge mode, routing mode, bypass mode and other deployment modes, meeting the need for deployment in various contexts.

■ The transparent bridging does not change the configurations of other devices, allowing complete URL filtering, flow control and content auditing.

■ The bypass mode ensures that the network is free from single point failure and will not affect network performance.

■ Built-in hardware BYPASS guarantees uninterrupted forwarding in case of power failure, device reboot and other abnormal circumstances.

Preparations before Installation

Safety Precautions

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.

The following safety suggestions are applicable to the installation and use of the breakout gateway:

- 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.
- 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.

![Note] Install and use the device in restricted access locations.

Use of wrong battery may cause damage to the device. Do not replace the battery by yourself. Please contact the Customer Service Department of Ruijie Networks for help.

![Note] Invite professionals and related technicians to install this type of device.

This is a Class-A product which may cause radio interference in the living environment. In such a case, the user may need to take feasible measures against such interference.

Requirements on 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

- Cleanliness requirements
- Anti-static requirements
- Anti-interference requirements
- Lightning protection requirements
- Checking the installation location

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 the chapter of "Product Overview"):

■ Table 2-1 Temperature and Humidity Requirements of Ruijie EG Series Breakout Gateways

Temperature		Relative Humidity	
Long-term working condition	Short-term working condition	Long-term working condition	Short-term working condition
15ºC to 30ºC/ 59ºF to 86ºF	0ºC to 45ºC/ 32ºF to 113ºF	40% to 65%	10% to 90%

Note The temperature/humidity of working atmosphere 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 Requirements

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 incur more easily.

■ Table 2-2 The Equipment Room Dust Content and Particle Size Requirements of Ruijie EG Series Breakout Gateways

Maximum Diameter (µm)	0.5	1	3	5
Maximum Density (Particles/m3)	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 equipment room are shown in Table 2-3:

■ Table 2-3 Upper Limits of Noxious Gases of Ruijie EG Series Breakout Gateways

Gas	Average (mg/m3)	Maximum (mg/m3)
Sulfur dioxide	0.2	1.5
Sulfured hydrogen	0.006	0.03
Nitrogen dioxide	0.04	0.15
Ammonia	0.05	0.15
Chlorine	0.01	0.3

Anti-Static Requirements

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;

Pay attention to the following for modules or circuit boards which can be disassembled by the user:

■ 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 Requirements

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.

Checking the Installation Location

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

To enable smooth installation, prepare the following items:

- Installation tools
- Connecting cables
- Related devices

Installation tools include:

- Phillips screwdriver
- Anti-static wrist strap

Connection cables include:

- Power cables
- Configuration cables
- Ethernet cables
- Grounding wires

Related devices include:

- HUB or switch
- Configuration terminal (PC with hyper-terminal)
- Electric outlet

Installing the Breakout Gateway

Installation Procedure of Breakout Gateway

To avoid the damage of breakout gateway caused by rush or mal-operation during the installation process, install the device as per the following steps shown in Figure 3-1.

Figure 3-1 Device Installation Procedure
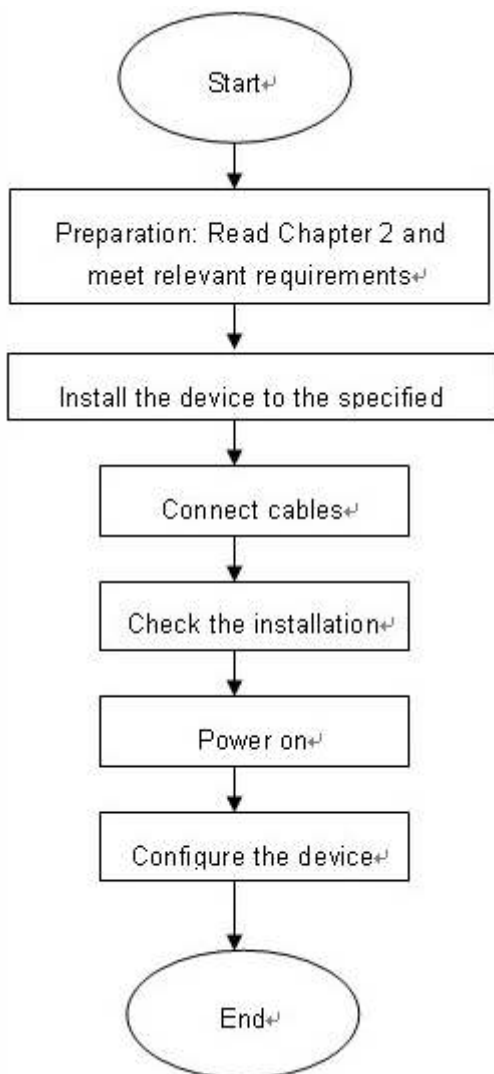
Mounting the Breakout Gateway

Mounting the breakout gateway refers to installing the device to the specified position. Upon completion of installation preparation, fix the breakout gateway 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.

Mounting on a Workbench

In most cases, the user does not have a standard cabinet. Instead, the user can place the device 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;

- Stick the attached plastic pads onto the small holes at the bottom of the breakout gateway, and reserve a heat elimination room of 10 cm around the device.
- Do not place heavy things on the device.

Installing Power Cables

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

100–240 V / 50–60 Hz

Make sure your power supply meets the requirement.

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.

Install power cables as per the following steps:

1) 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.
2) 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.

EMC Grounding

The grounding required for EMC design includes shielding ground, filter ground, noise and interference suppression, and level reference. All the above constitute the comprehensive grounding requirements. The grounding resistance should be less than 1 ohm. The EG series devices are equipped with a grounding pole at the rear panel, as shown in Figure 3-2.

Figure 3-2 Schematic Diagram of Grounding of the EG Series Devices

Grounding pole↵
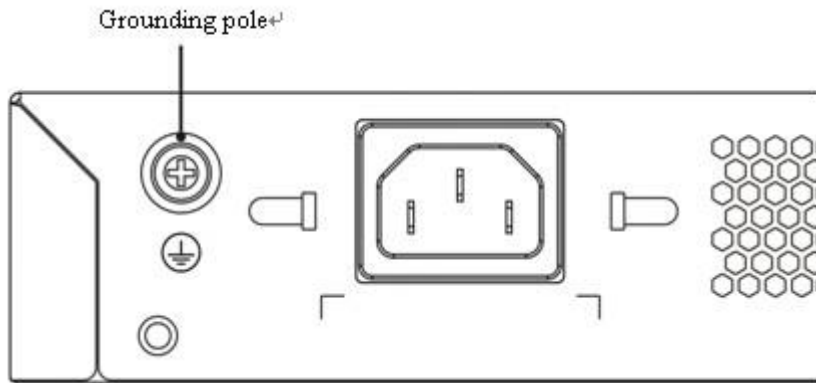
Connecting Console

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 Attributes of the 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 reversed 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 other devices like the configuration terminal.

Starting and Configuring the Breakout Gateway

Starting a Breakout Gateway

Building 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;

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

Configure the communication parameters: 9600 baud rate, 8-bit data bits, 1-bit stop bit, no parity check, and no flow control, as shown in Figure 4-3;

Choose **File** > **Attribute** > **Setting** and select the terminal emulation type of VT100; all as shown in Figure 4-4:

■ Figure 4-1 Establish a New Cconnection

Figure 4-2 Select the Serial Port of Microcomputer Connecting with the Console Port of Breakout Gateway

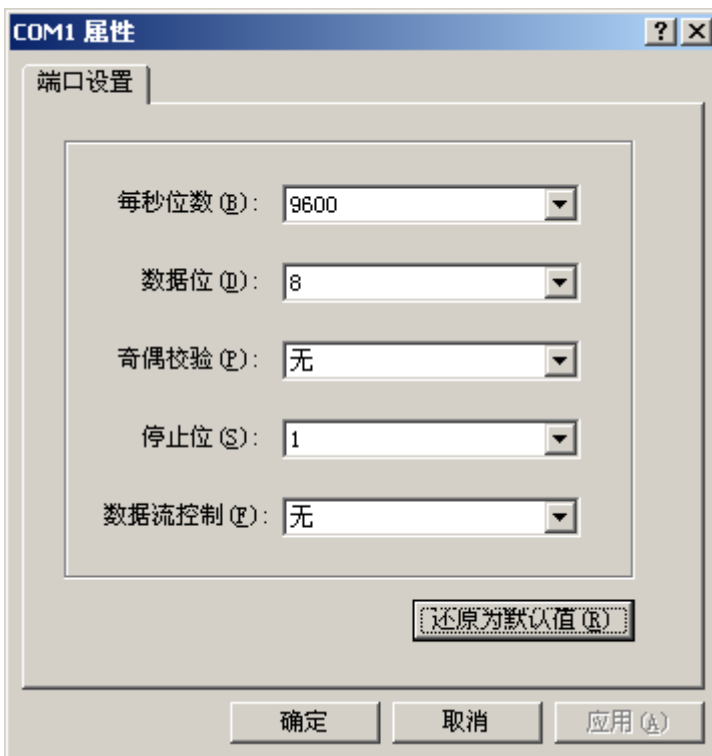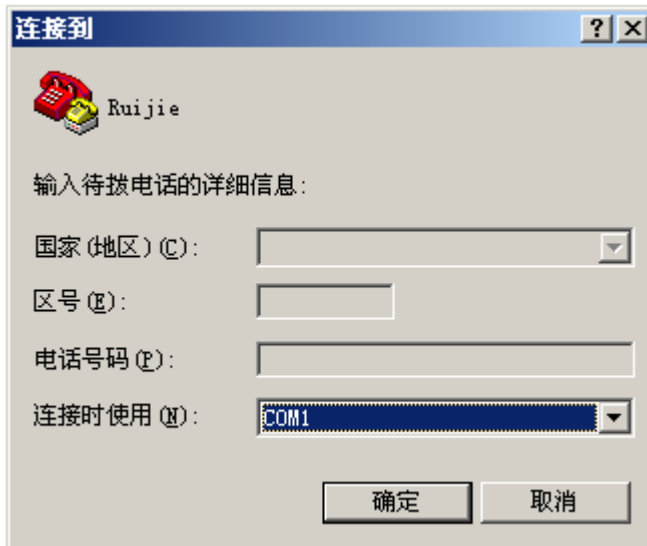Figure 4-3 Configure the Communication Parameters of the Serial Port

Figure 4-4 Select the Terminal Emulation Type

After building the configuration environment, you can then power on the breakout gateway.

Powering on the Breakout Gateway

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.

Caution   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
  Checking procedure: 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.

Checking procedure: Refer to the section of indicators description about each product in the first chapter "Product Overview".

■ Whether the configuration terminal displays normally

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

Starting 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

Copyright (c) 1998-2009 by Ruijie Networks.
All Rights Reserved.
Decompiling or Reverse Engineering is Not Allowed.

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.

Starting the 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 Troubleshooting

Ruijie EG1000C/EG 1000-CM/EG1000S/EG1000M/EG1000L breakout gateway provides a PWR LED on the front panel for indicating whether the power system works normally. Refer to "Product Overview" for the normal state descriptions of LED indicators. If abnormity 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 power switch is already turned on. If everything is ok but the PWR LED still does not light up, contact with a local dealer or technical support personnel.

Configuration System Troubleshooting

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, perform the following checks:

- 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: baud rate being 9600; data bits being 8; parity check being none; stop bit being 1; flow control being none; terminal emulation being VT100.

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