

RG-ES200 Series Smart Cloud Managed Switches

DATASHEET

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Highlights

- Abundant models fit needs for access layer in SMB network
- Cost-Effective Smart Cloud Managed Switches
- IP Camera Recognition, Unique Value for CCTV Network
- Automatic Loop Prevention Ensures Service Continuity
- Lifetime management on Ruijie Cloud at anytime anywhere

Highlight Features

RG-ES200 Series Switches

Gigabit access switch fits the needs in SMB network



802.3at / 802.3af



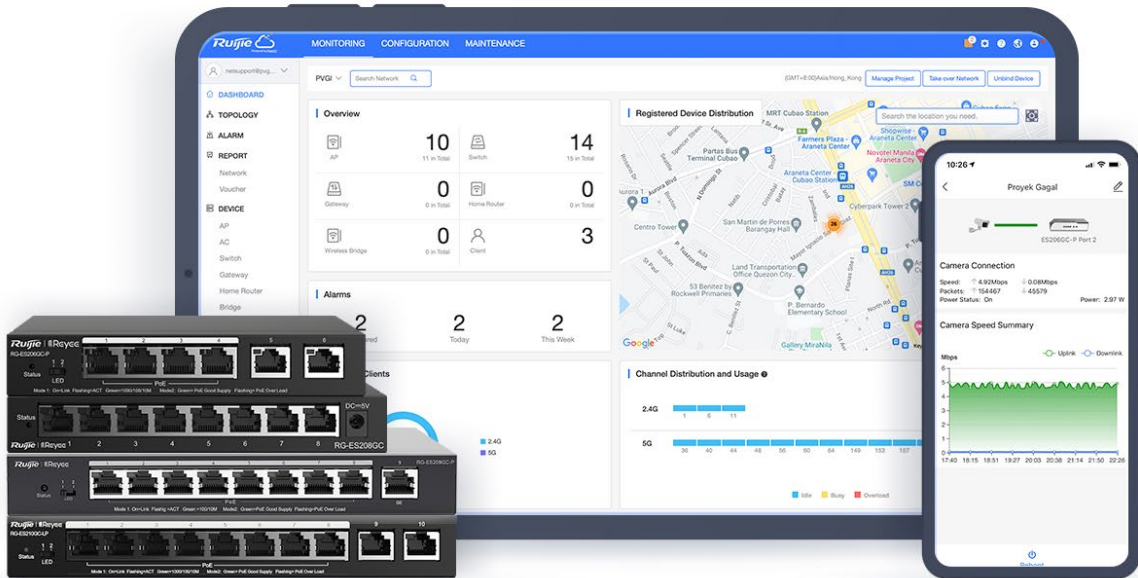
Abundant Application Scenarios



Centralized Cloud Management

Cost-Effective Smart Cloud Managed Switches

ES200 adopts a light-weighted Cloud management design, providing faster response to support richer features.



IP Camera/NVR recognition



Automatic Loop Prevention



Mobile VLAN Configuration



Intelligent PoE Adaptive

Highlight Features

Unique Value for CCTV Network

The image shows a 3D rendering of a meeting room with a server rack and a smartphone displaying network monitoring data. The smartphone screen shows the following information:

- Speed: 5.02Mbps / 0.08Mbps
- Packets: 160970 / 46348
- Power Status: On / Power: 2.54 W
- Camera Speed Summary graph showing Mbps over time (12:54 to 17:09).
- Reboot succeeded notification.

Four key features are highlighted at the bottom:

- 250 meters transmission*
- Flexible extend mode
- IPC Offline Alarm
- Individual port reboot

Automatic Loop Prevention Ensures Service Continuity

Network stays connected when network loop happens

The image shows a smartphone displaying network settings with a 'Loop Prevention' toggle switch turned on. The toggle switch is labeled 'Loop Prevention' and 'Detects and prevents loops automatically.' The smartphone screen also shows the following information:

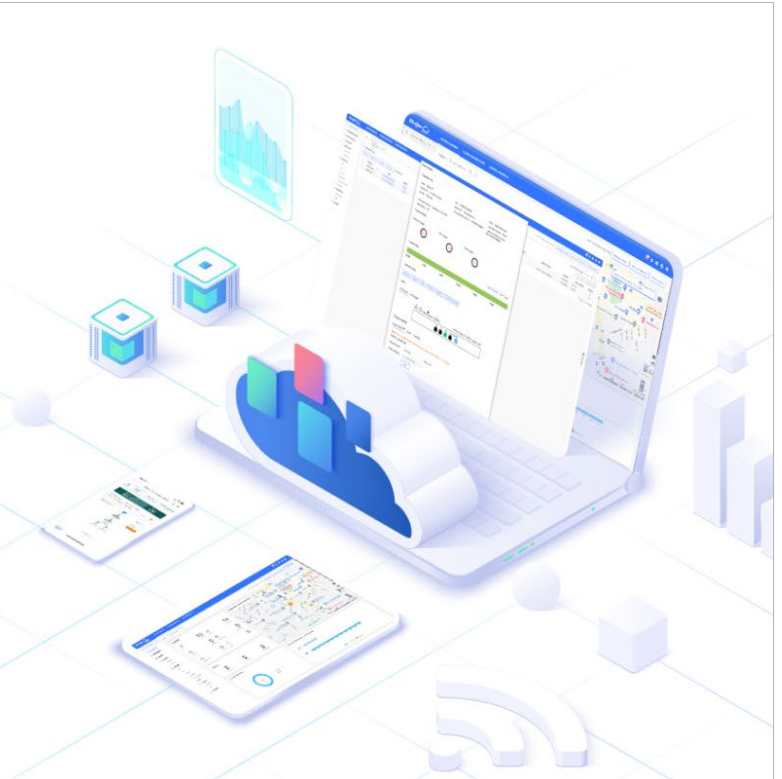
- PortG3: 1000M, 0, 4.7, Reboot | More
- PortG4: 1000M, 0.001, 5.1, Reboot | More
- PortG5: 1000M, 0.010, 0.0, Reboot | More
- VLAN Settings
- Loop Prevention: Detects and prevents loops automatically.
- Cable Test
- Monitor
- Device Log
- Delete
- Reboot

The smartphone is connected to a Ruijie RG-ES205GC-P PoE switch. The switch has a status LED and a PoE port. The switch is connected to a Ruijie camera and a Ruijie PoE injector. The switch is also connected to a Ruijie PoE injector.

Highlight Features

Cloud, Make Your Business Easy

- SON, zero touch provisioning to Cloud
- Configure VLANs on Ruijie Cloud APP
- Monitor switch statistics at anytime anywhere
- Easy maintenance, save onsite time and cost



Specifications

Specifications		RG-ES205GC	RG-ES208GC	RG-ES216GC-V2	RG-ES224GC-V2	RG-ES205GC-P	
Hardware Specifications							
Port	Total Number of RJ45 Ports	5	8	16	24	5	
	Number of 1GE RJ45 ports	5	8	16	24	5	
POE	Number of PoE in ports	N/A	N/A	N/A	N/A	4	
	Number of PoE/PoE+ out ports	N/A	N/A	N/A	N/A	4	
	PoE budget	N/A	N/A	N/A	N/A	54W	
	PoE power pins	N/A	N/A	N/A	N/A	1 2+, 3 6-	
System Specifications	Recommended camera limit	200W H265:40 400W H265:20	200W H265:40 400W H265:20	200W H265:80 400W H265:40	200W H265:80 400W H265:40	200W H265:40 400W H265:20	
	Forwarding rate	7.4Mpps	11.9Mpps	23.8Mpps	35.7Mpps	7.4Mpps	
	Switching capacity	10Gbps	16Gbps	32Gbps	48Gbps	10Gbps	
	Maximum number of VLANs	16	16	16	16	16	
	Maximum number of MAC address entries	2K	4K	8K	8K	2K	
	Power input	AC input Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 0.3A Adapter output Rated voltage range: 5V DC Rated current range: 1A	AC input Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 0.3A Adapter output Rated voltage range: 5V DC Rated current range: 1A	Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 0.3A Adapter output Rated voltage range: 5V DC Rated current range: 1A	Rated voltage range: 100-240V~ Maximum voltage range: 90-264V~ Frequency: 50/60Hz Rated current: 0.6A	Rated voltage range: 100-240V~ Maximum voltage range: 90-264V~ Frequency: 50/60Hz Rated current: 0.6A	AC input Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 1.5A Adapter output Rated voltage range: 54V DC Rated current range: 1.11A

Specifications		RG-ES205GC	RG-ES208GC	RG-ES216GC-V2	RG-ES224GC-V2	RG-ES205GC-P
	Maximum power consumption	≤5W	≤5W	≤10W	≤13W	Less than 5W with no PoE load Less than 60W with PoE full load
Power	Input power supply	Power adapter	Power adapter	Single fixed power supply	Single fixed power supply	Power adapter
FAN	Fan	Fanless	Fanless	Fanless	Fanless	Fanless
	Heat dissipation	17.1 BTU/hr(220V/50Hz)	17.1 BTU/hr(220V/50Hz)	34.2 BTU/hr(220V/50Hz)	44.46 BTU/hr(220V/50Hz)	Less than 20.52 BTU/hr(220V/50Hz) with no PoE load Less than 205.2 BTU/hr(220V/50Hz) with PoE full load
	Acoustic noise	Fanless	Fanless	Fanless	Fanless	Fanless
Button	Reset button	Yes	Yes	Yes	Yes	Yes
EMC	EMC	EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)	EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)	GB/T 9254.1-2021 class A EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)	GB/T 9254.1-2021 class A EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)	EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)
Safety Compliance	Safety compliance	EN 62638-1	EN 62638-1	GB4943.1-2022, EN 62638-1	GB4943.1-2022, EN 62638-1	EN 62638-1
Certification	CE, FCC	CE	CE	CE	CE	CE
Mounting	Mounting	Wall-mount and Desk-type	Wall-mount and Desk-type	Rack installation	Rack installation	Wall-mount and Desk-type
Casing	Casing	Metal	Metal	Metal	Metal	Metal
Cable Hot-Swappable	Hot swapping of cables	Supported by all ports	Supported by all ports	Supported by all ports	Supported by all ports	Supported by all ports
Mean Time Between Failure (MTBF)	MTBF	>200K	>200K	>200K	>200K	>200K
Warranty	Warranty Card	3	3	3	3	3
EEE	EEE	Yes	Yes	Yes	Yes	Yes

Specifications		RG-ES205GC	RG-ES208GC	RG-ES216GC-V2	RG-ES224GC-V2	RG-ES205GC-P
Environment and Reliability	Operating temperature	0 to 40°C	0 to 40°C	0 to 50°C	0 to 50°C	0 to 40°C
	Storage temperature	-40 to 70°C	-40 to 70°C	-40~70°C	-40~70°C	-40 to 70°C
	Operating humidity	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)
	Storage humidity	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)
	Operating altitude	-500 to 5000M	-500 to 5000M	-500~5000M	-500~5000M	-500~5000M
	ESD protection	Air Discharge: 4kV Contact Discharge: 4kV	Air Discharge: 4kV Contact Discharge: 4kV	Air Discharge: 8kV Contact Discharge: 6kV	Air Discharge: 8kV Contact Discharge: 6kV	Air Discharge: 6kV Contact Discharge: 4kV
	Surge protection	Common Mode 4kV	Common Mode 4kV	Common Mode 6kV	Common Mode 6kV	Common Mode 4kV
	Surge protection	Common Mode: 2kV Differential mode 1kV	Common Mode: 2kV Differential mode 1kV	Common Mode: 6kV Differential mode 6kV	Common Mode: 6kV Differential mode 6kV	Common Mode: 4kV Differential mode 2kV
Package Contents	Dimensions (W x D x H)	119mm*62mm*24mm	160mm*75mm*24mm	440mm*165mm*44mm	440mm*165mm*44mm	148mm*78mm*26mm
	Weight	0.23kg	0.49kg	2.0kg	2.20kg	0.295kg
	Shipping weight	0.47kg(packages included)	0.651kg(packages included)	2.61kg(packages included)	2.69kg(packages included)	0.85kg(packages included)
	Rack-mount bracket	N/A	N/A	2	2	N/A
	Screw	N/A	N/A	M4 Screw*6	M4 Screw*6	N/A
	User Manual	1	1	1	1	1
	Rubber pad	N/A	N/A	4	4	N/A
	Input power supply	Power adapter	Power adapter	Single fixed power supply	Single fixed power supply	Power adapter
	Warranty Card	1	1	1	1	1
L2						
Jumbo Frame	Jumbo frame length (MTU)	9216 Bytes	9216 Bytes	10000 Bytes	10000 Bytes	9216 Bytes
port	Port flow control	Yes	Yes	Yes	Yes	Yes

Specifications		RG-ES205GC	RG-ES208GC	RG-ES216GC-V2	RG-ES224GC-V2	RG-ES205GC-P
	PoE watchdog	N/A	N/A	N/A	N/A	Yes
	Port isolation	Yes	Yes	Yes	Yes	Yes
	EEE	Yes	Yes	Yes	Yes	Yes
	Ultra-long-haul transmission	N/A	N/A	N/A	N/A	Yes
	Cable Test	Yes	Yes	Yes	Yes	Yes
VLAN	IEEE802.1Q VLAN	Yes	Yes	Yes	Yes	Yes
	Port-based VLAN	Yes	Yes	Yes	Yes	Yes
SPAN	Port mirroring	Yes	Yes	Yes	Yes	Yes
	Mirroring	Yes	Yes	Yes	Yes	Yes
Mac Address	Static MAC address	Yes	Yes	Yes	Yes	Yes
Storm Suppression	Broadcast storm control	Yes	Yes	Yes	Yes	Yes
	Multicast storm control	Yes	Yes	Yes	Yes	Yes
	Unknown unicast storm control	Yes	Yes	Yes	Yes	Yes
L3						
DNS	DNS client	Yes	Yes	Yes	Yes	Yes
DHCP	DHCP snooping	Yes	Yes	Yes	Yes	Yes
	DHCP client	Yes	Yes	Yes	Yes	Yes
High Features						
QoS	Interface-based rate limiting (ingress/egress)	Yes	Yes	Yes	Yes	Yes
Online Upgrade	Online Upgrade	Yes	Yes	Yes	Yes	Yes
Self-Organizing Network	SON	Yes	Yes	Yes	Yes	Yes
syslog	System log	Yes	Yes	Yes	Yes	Yes
ALARM	Camera detection	Yes	Yes	Yes	Yes	Yes
	Loop alarm	Yes	Yes	Yes	Yes	Yes
	PoE power overload	N/A	N/A	N/A	N/A	Yes

Specifications		RG-ES205GC	RG-ES208GC	RG-ES216GC-V2	RG-ES224GC-V2	RG-ES205GC-P
Management Features						
Web Management	eWeb	Yes	Yes	Yes	Yes	Yes
MACC	Ruijie Cloud	Yes	Yes	Yes	Yes	Yes
APP	Ruijie Reeye App	Yes	Yes	Yes	Yes	Yes

Specifications

Specifications		RG-ES206GS-P	RG-ES209GC-P	RG-ES210GS-P	RG-ES228GS-P	RG-ES220GS-P
Hardware Specifications						
Port	Total Number of RJ45 Ports	6	9	10	26	18
	Total Number of Optical Ports	1	N/A	1	2	2
	Number of Combo Ports	1	N/A	1	N/A	N/A
	Number of 1GE SFP ports	1	N/A	1	2	2
	Number of 1GE RJ45 ports	6	9	10	26	18
POE	Number of PoE in ports	4	8	8	N/A	N/A
	Number of PoE/PoE+ out ports	4	8	8	24	16
	PoE budget	54W	120W	120W	370W	250W
	PoE power pins	1 2+, 3 6-	1 2+, 3 6-	1 2+, 3 6-	1 2+, 3 6-	1 2+, 3 6-
System Specifications	Recommended camera limit	200W H265:40 400W H265:20	200W H265:40 400W H265:20	200W H265:40 400W H265:20	200W H265:80 400W H265:40	200W H265:80 400W H265:40
	Forwarding rate	8.9Mpps	13.4Mpps	14.8Mpps	41.664Mpps	29.76Mpps
	Switching capacity	12Gbps	18Gbps	20Gbps	56Gbps	40Gbps
	Maximum number of VLANs	16	16	16	16	16

Specifications		RG-ES206GS-P	RG-ES209GC-P	RG-ES210GS-P	RG-ES228GS-P	RG-ES220GS-P	
	Maximum number of MAC address entries	2K	4K	4K	8K	8K	
	Power input	AC input Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 1.5A	AC input Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 2.5A	AC input Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 2.5A	Rated voltage range: 100V to 240V Maximum voltage range: 90V to 264V Frequency: 50/60 Hz Rated current: 2.5A	Rated voltage range: 100-240V~ Maximum voltage range: 90-264V~ Frequency: 50/60Hz Rated current: 7.2A	Rated voltage range: 100-240V~ Maximum voltage range: 90-264V~ Frequency: 50/60Hz Rated current: 4.5A
		Adapter output Rated voltage range: 54V DC Rated current range: 1.11A	Adapter output Rated voltage range: 54V DC Rated current range: 2.4A	Adapter output Rated voltage range: 54V DC Rated current range: 2.4A	Adapter output Rated voltage range: 54V DC Rated current range: 2.4A		
		Maximum power consumption	Less than 6W with no PoE load Less than 60W with PoE full load	Less than 10W with no PoE load Less than 120W with PoE full load	Less than 10W with no PoE load Less than 120W with PoE full load	Less than 25W with no PoE load Less than 400W with PoE full load	Less than 15W with no PoE load Less than 255W with PoE full load
Power	Input power supply	Power adapter	Power adapter	Power adapter	Single fixed power supply	Single fixed power supply	
FAN	Fan	Fanless	Fanless	Fanless	1	1	
	Fan speed adjustment	N/A	N/A	N/A	supported	supported	
	Heat dissipation	Less than 20.52 BTU/hr(220V/50 Hz) with no PoE load Less than 205.2 BTU/hr(220V/50 Hz) with PoE full load	Less than 34.2 BTU/hr(220V/50Hz) with no PoE load Less than 410.4 BTU/hr(220V/50Hz) with PoE full load	Less than 34.2 BTU/hr(220V/50Hz) with no PoE load Less than 410.4 BTU/hr(220V/50Hz) with PoE full load	Less than 85.5 BTU/hr(220V/50Hz) with no PoE load Less than 1,368 BTU/hr(220V/50Hz) with PoE full load	Less than 51.3 BTU/hr(220V/50Hz) with no PoE load Less than 872.1 BTU/hr(220V/50Hz) with PoE full load	

Specifications		RG-ES206GS-P	RG-ES209GC-P	RG-ES210GS-P	RG-ES228GS-P	RG-ES220GS-P
			0Hz) with PoE full load			
	Acoustic noise	Fanless	Fanless	Fanless	<40dB (when the device works normally)	<40dB (when the device works normally)
Button	Reset button	Yes	Yes	Yes	Yes	Yes
EMC	EMC	EN 55032:2015+AC:2016	EN 55032:2015+A C:2016	EN 55032:2015+AC:2016	EN 55032:2015+AC:2016	EN 55032:2015+AC:2016
		EN 61000-3-2:2014	EN 61000-3-2:2014	EN 61000-3-2:2014	EN 61000-3-2:2014	EN 61000-3-2:2014
		EN 61000-3-3:2013	EN 61000-3-3:2013	EN 61000-3-3:2013	EN 61000-3-3:2013	EN 61000-3-3:2013
		EN 55035:2017	EN 55035:2017	EN 55035:2017	EN 55035:2017	EN 55035:2017
		ETSI EN 300 386 V2.1.1 (2016-07)	ETSI EN 300 386 V2.1.1 (2016-07)	ETSI EN 300 386 V2.1.1 (2016-07)	ETSI EN 300 386 V2.1.1 (2016-07)	ETSI EN 300 386 V2.1.1 (2016-07)
Safety Compliance	Safety compliance	EN 62638-1	EN 62638-1	EN 62638-1	EN 62638-1	EN 62638-1
Certification	CE, FCC	CE;FCC	CE;FCC	CE;FCC	CE;FCC	CE;FCC
Mounting	Mounting	Wall-mount and Desk-type	Wall-mount and Desk-type	Wall-mount and Desk-type	Rack installation	Rack installation
Casing	Casing	Metal	Metal	Metal	Metal	Metal
Cable Hot-Swappable	Hot swapping of cables	Supported by all ports	Supported by all ports	Supported by all ports	Supported by all ports	Supported by all ports
Mean Time Between Failure (MTBF)	MTBF	>200K	>200K	>200K	>200K	>200K
Warranty	Warranty Card	3	3	3	3	3
EEE	EEE	Yes	Yes	Yes	Yes	Yes
Environment and Reliability	Operating temperature	0 to 40°C	0 to 40°C	0 to 40°C	0 to 40°C	0 to 40°C
	Storage temperature	-40 to 70°C	-40 to 70°C	-40 to 70°C	-40~70°C	-40~70°C

Specifications		RG-ES206GS-P	RG-ES209GC-P	RG-ES210GS-P	RG-ES228GS-P	RG-ES220GS-P
	Operating humidity	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)	10% to 90% RH(non-condensing)
	Storage humidity	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)
	Operating altitude	-500 to 5000M	-500~5000M	-500 to 5000M	-500~5000M	-500~5000M
	ESD protection	Air Discharge: 8kV Contact Discharge: 6kV	Air Discharge: 6kV Contact Discharge: 4kV	Air Discharge: 8kV Contact Discharge: 6kV	Air Discharge: 8kV Contact Discharge: 6kV	Air Discharge: 8kV Contact Discharge: 6kV
	Surge protection	Common Mode 6kV	Common Mode 4kV	Common Mode 6kV	Common Mode 4kV	Common Mode 4kV
	Surge protection	Common Mode: 4kV Differential mode 2kV	Common Mode: 4kV Differential mode 2kV	Common Mode: 4kV Differential mode 2kV	Common Mode: 6kV Differential mode 6kV	Common Mode: 6kV Differential mode 6kV
Package Contents	Dimensions (W x D x H)	148mm*78mm *26mm	202mm*108m m*28mm	202mm*108mm* 28mm	440mm*214.9mm * 44mm	300mm*223mm* 43.6mm
	Weight	0.308kg	0.527kg	0.55kg	2.84kg	2.12kg
	Shipping weight	1.07kg(package s included)	1.55kg(packag es included)	1.65 (packages included)	4 kg (packages not included)	2.8kg(packages included)
	Rack-mount bracket	N/A	N/A	N/A	2	2
	Screw	N/A	N/A	N/A	M4 Screw*6	M3 Screw*6
	User Manual	1	1	1	1	1
	Rubber pad	N/A	N/A	N/A	4	4
	Input power supply	Power adapter	Power adapter	Power adapter	Single fixed power supply	Single fixed power supply
Warranty Card	1	1	1	1	1	
L2						
Jumbo Frame	Jumbo frame length (MTU)	9216 Bytes	9216 Bytes	9216 Bytes	10000 Bytes	10000 Bytes
port	Port flow control	Yes	Yes	Yes	Yes	Yes
	PoE watchdog	Yes	Yes	Yes	Yes	Yes

Specifications		RG-ES206GS-P	RG-ES209GC-P	RG-ES210GS-P	RG-ES228GS-P	RG-ES220GS-P
	Port isolation	Yes	Yes	Yes	Yes	Yes
	EEE	Yes	Yes	Yes	Yes	Yes
	Ultra-long-haul transmission	Yes	Yes	Yes	Yes	Yes
	Cable Test	Yes	Yes	Yes	Yes	Yes
VLAN	IEEE802.1Q VLAN	Yes	Yes	Yes	Yes	Yes
	Port-based VLAN	Yes	Yes	Yes	Yes	Yes
SPAN	Port mirroring	Yes	Yes	Yes	Yes	Yes
	Mirroring	Yes	Yes	Yes	Yes	Yes
Mac Address	Static MAC address	Yes	Yes	Yes	Yes	Yes
Storm Suppression	Broadcast storm control	Yes	Yes	Yes	Yes	Yes
	Multicast storm control	Yes	Yes	Yes	Yes	Yes
	Unknown unicast storm control	Yes	Yes	Yes	Yes	Yes
L3						
DNS	DNS client	Yes	Yes	Yes	Yes	Yes
DHCP	DHCP snooping	Yes	Yes	Yes	Yes	Yes
DHCP	DHCP client	Yes	Yes	Yes	Yes	Yes
High Features						
QoS	Interface-based rate limiting (ingress/egress)	Yes	Yes	Yes	Yes	Yes
Online Upgrade	Online Upgrade	Yes	Yes	Yes	Yes	Yes
Self-Organizing Network	SON	Yes	Yes	Yes	Yes	Yes
syslog	System log	Yes	Yes	Yes	Yes	Yes
ALARM	Camera detection	Yes	Yes	Yes	Yes	Yes
ALARM	Loop alarm	Yes	Yes	Yes	Yes	Yes

Specifications		RG-ES206GS-P	RG-ES209GC-P	RG-ES210GS-P	RG-ES228GS-P	RG-ES220GS-P
ALARM	PoE power overload	Yes	Yes	Yes	Yes	Yes
Management Features						
Web Management	eWeb	Yes	Yes	Yes	Yes	Yes
MACC	Ruijie Cloud	Yes	Yes	Yes	Yes	Yes
APP	Ruijie Reyee App	Yes	Yes	Yes	Yes	Yes

Ruijie | RYCE

 **Redefine your easy network**

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