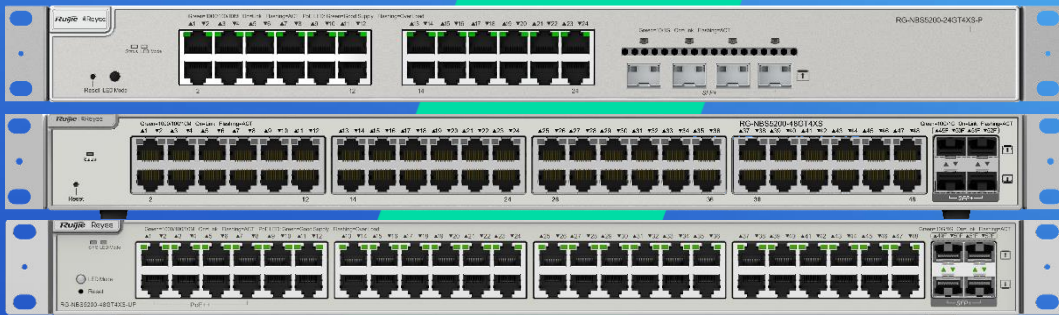


# RG-NBS5200 Series Layer 3 Cloud Managed Switch

DATASHEET

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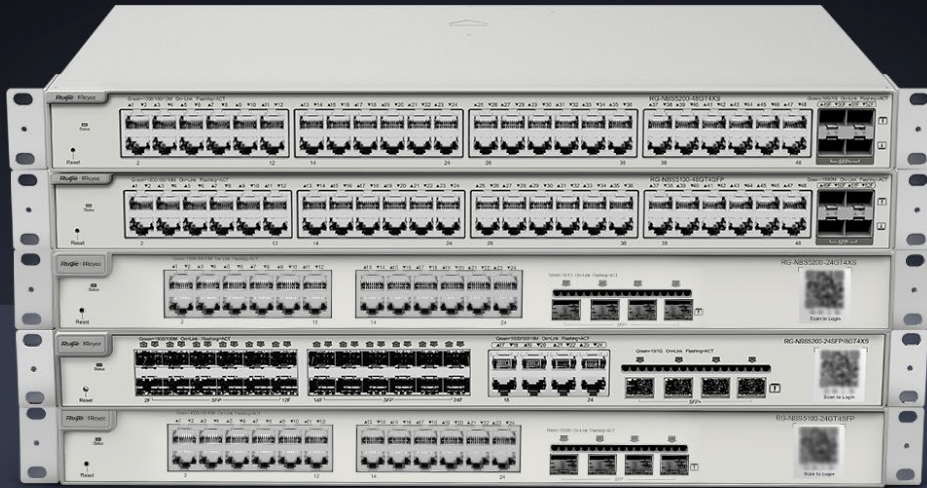
## Highlights

- Enterprise-class quality ensures High Performance
- Dynamic routing allows traffic to be routed at Layer 3
- Multiple security policies protect your network
- Lifetime management on Ruijie Cloud at anytime anywhere

# Highlight Features

## RG-NBS5000 Series Switch

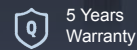
High performance Layer 3 switch for core/aggregation



Dynamic Routing



6kV Surge Protection



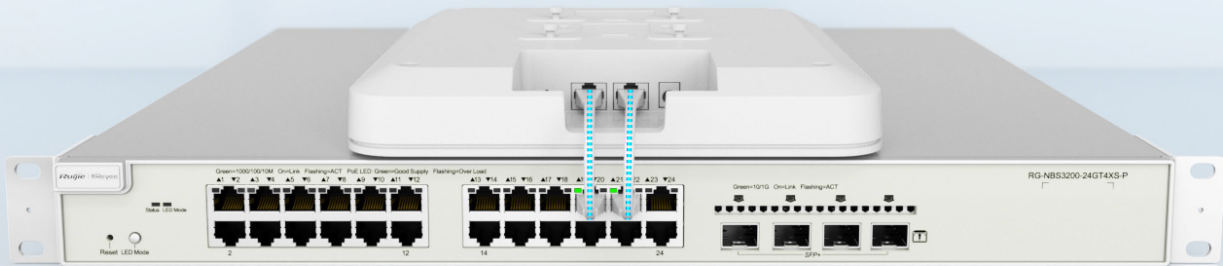
5 Years Warranty

## Enterprise-class Quality Ensures High Performance

[Link Aggregation](#)

[IGMP Snooping](#)

[VLAN](#)



# Highlight Features

## Enterprise-class Quality Ensures High Performance

Link Aggregation

**IGMP Snooping**

VLAN

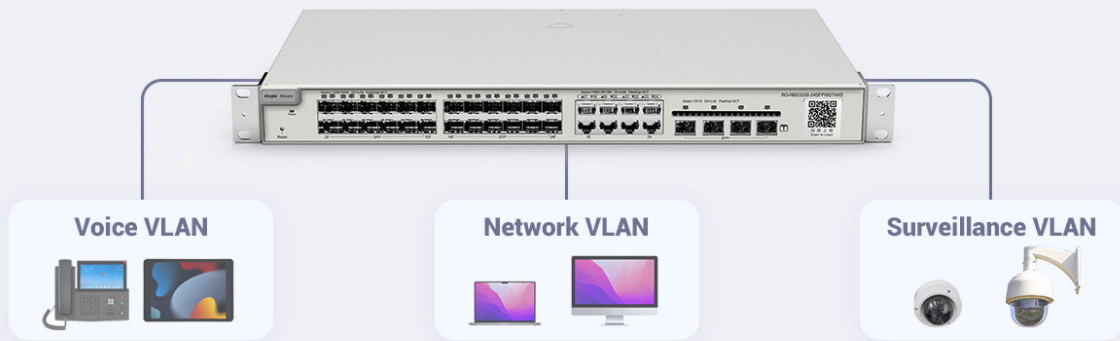


## Enterprise-class Quality Ensures High Performance

Link Aggregation

IGMP Snooping

**VLAN**



# Highlight Features

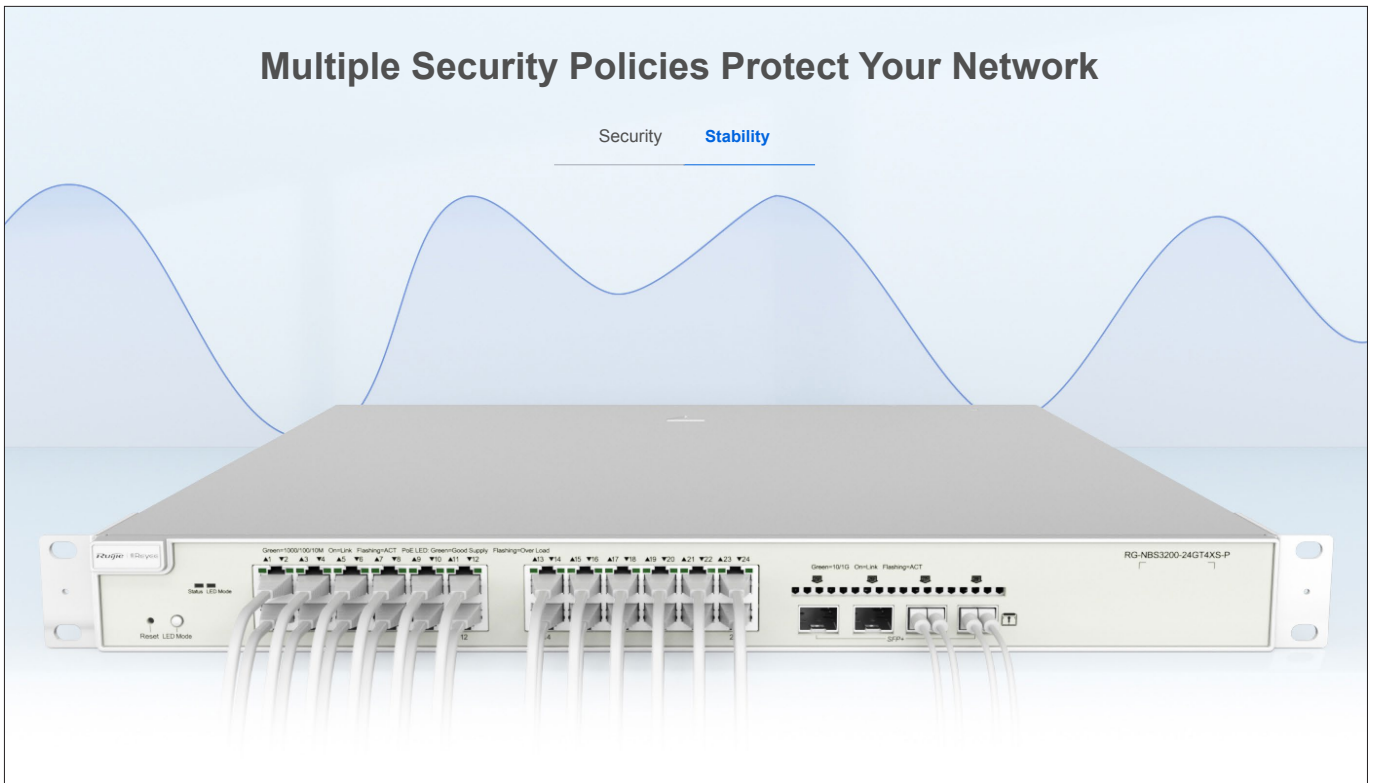
## Multiple Security Policies Protect Your Network

Security Stability



## Multiple Security Policies Protect Your Network

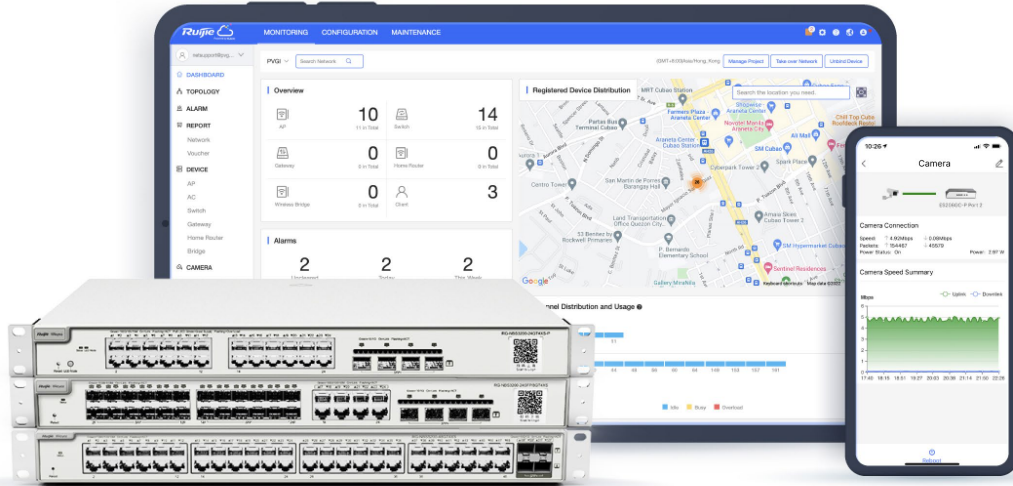
Security Stability



# Highlight Features

## Cloud, Make Your Business Easy

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



## Specifications

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
<b>Hardware Specifications</b>						
<b>Product Information</b>	Warranty	5 years	5 years	5 years	5 years	5 years
	Product category	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3
<b>Port Specifications</b>	Total number of RJ45 ports	24	48	8 (including eight combo ports)	24	48
	Total number of optical ports	4	4	28 (including eight combo ports)	4	4
	Number of 1GE combo ports	No	No	8	No	No
	Number of 1GE SFP ports	No	No	24 (including eight combo ports)	No	No
	Number of 10GE SFP+ ports	4	4	4	4	4
	Number of 10/100/1000BASE-T ports	24	48	8 (including eight combo ports)	24	48
<b>Interface Specifications</b>	Reset button	1	1	1	1	1
<b>Certification and Regulatory</b>	EMC	EN 55032	EN 55032	EN 55032	EN 55032	EN 55032
		EN 61000-3-2	EN 61000-3-2	EN 61000-3-2	EN 61000-3-2	EN 61000-3-2
		EN 61000-3-3	EN 61000-3-3	EN 61000-3-3	EN 61000-3-3	EN 61000-3-3
		EN 55035	EN 55035	EN 55035	EN 55035	EN 55035

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
Compliance		EN 300 386	EN 300 386	EN 300 386	EN 300 386	EN 300 386
	Safety compliance	IEC 62368-1	IEC 62368-1	IEC 62368-1	IEC 62368-1	IEC 62368-1
	Certification	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC
Power Supply and Consumption	PoE Out standard	No	No	No	PoE/PoE+ (IEEE 802.3af/at)	Ports 1-8: PoE/PoE+/PoE++ (IEEE 802.3af/at/bt) Ports 7-48: PoE/PoE+ (IEEE 802.3af/at)
	Number of PoE Out ports	No	No	No	24	48
	Number of PoE/PoE+ Out ports	No	No	No	24	48
	Number of PoE/PoE+/PoE++ Out ports	No	No	No	No	8
	PoE budget	No	No	No	370 W	740 W
	PoE power pins	No	No	No	1-2 (+), 3-6 (-)	Ports 1-8: 1-2(-), 3-6(+), 4-5(+), 7-8(-)
	Power input	220 V AC power supply: ● Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz	220 V AC power supply: ● Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz	220 V AC power supply: ● Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz	220 V AC power supply: ● Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz	220 V AC power supply: ● Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
		<ul style="list-style-type: none"> <li>● Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>● Maximum input current: 1.5 A</li> </ul>	<ul style="list-style-type: none"> <li>● Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>● Maximum input current: 2 A</li> </ul>	<ul style="list-style-type: none"> <li>● Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>● Maximum input current: 2 A</li> </ul>	<ul style="list-style-type: none"> <li>● Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>● Maximum input current: 6 A</li> </ul>	<ul style="list-style-type: none"> <li>● Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>● Maximum input current: 10 A</li> </ul>
	Maximum power consumption	28.028 W	46.4 W	41.8 W	42.48 W (with no PoE load) 431.8 W (with full PoE load)	75.6 W (with no PoE load) 815.6 W (with full PoE load)
	Power supply	Fixed power supply	Fixed power supply	Fixed power supply	Fixed power supply	Fixed power supply
<b>Dimensions and Weight</b>	Casing	Metal	Metal	Metal	Metal	Metal
	Product dimensions (W x D x H)	440 mm x 207.5 mm x 43.6 mm (17.32 in. x 8.17 in. x 1.72 in.)	440 mm x 267.5 mm x 43.6 mm (17.32 in. x 10.53 in. x 1.72 in.)	440 mm x 267.5 mm x 43.6 mm (17.32 in. x 10.53 in. x 1.72 in.)	440 mm x 357.6 mm x 43.6 mm (17.32 in. x 14.08 in. x 1.72 in.)	440 mm x 357.6 mm x 43.6 mm (17.32 in. x 14.08 in. x 1.72 in.)
	Weight	2.9 kg (6.39 lbs) (without packaging materials)	3.6 kg (7.94 lbs) (without packaging materials)	3.35 kg (7.39 lbs) (without packaging materials)	4.75 kg (10.47 lbs) (without packaging materials)	5.64 kg (12.43 lbs) (without packaging materials)
	Shipping weight	4.02 kg (8.86 lbs)	5.14 kg (11.33 lbs)	4.9 kg (10.8 lbs)	6.51 kg (14.35 lbs)	7.15 kg (15.76 lbs)
<b>System Specifications</b>	CPU	MAC chip, single-core processor, 800 MHz clock frequency	MAC chip, dual-core processor, 1 GHz clock frequency per core	MAC chip, single-core processor, 800 MHz clock frequency	MAC chip, single-core processor, 800 MHz clock frequency	MAC chip, dual-core processor, 1 GHz clock frequency per core
	RAM	512 MB	1 GB	512 MB	512 MB	512 MB
	Flash memory	256 MB	256 MB	256 MB	256 MB	256 MB

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	Forwarding rate	96 Mpps	132 Mpps	96 Mpps	96 Mpps	132 Mpps
	Switching capacity	128 Gbps(bit/s)	216 Gbps(bit/s)	128 Gbps(bit/s)	128 Gbps(bit/s)	176 Gbps(bit/s)
<b>Environment and Reliability</b>	Fan	1 x fixed fan	2 x fixed fans	2 x fixed fans	2 x fixed fans	3 x fixed fans
	Cooling	Air cooling, left-to-right airflow	Air cooling, side-to-rear airflow	Air cooling, left-to-right airflow	Air cooling, left-to-right airflow	Air cooling, side-to-rear airflow
	Acoustic noise	25°C (77°F): 45 dB	25°C (77°F): 45 dB	25°C (77°F): 45 dB	25°C (77°F): 49 dB	25°C (77°F): 60 dB
	Mounting options	Rack	Rack	Rack	Rack	Rack
	Hot swapping of cables	Service ports support hot swapping of cables.	Service ports support hot swapping of cables.	Service ports support hot swapping of cables.	Service ports support hot swapping of cables.	Service ports support hot swapping of cables.
	MTBF	400,000 hours	400,000 hours	400,000 hours	400,000 hours	400,000 hours
	Operating temperature	0°C to +50°C (32°F to 122°F)	0°C to +50°C (32°F to 122°F)	0°C to +50°C (32°F to 122°F)	0°C to +50°C (32°F to 122°F)	0°C to +50°C (32°F to 122°F)
	Storage temperature	-40°C to +70°C (-40°F to +158°F)	-40°C to +70°C (-40°F to +158°F)	-40°C to +70°C (-40°F to +158°F)	-40°C to +70°C (-40°F to +158°F)	-40°C to +70°C (-40°F to +158°F)
	Operating humidity	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)	10% RH to 90% RH (non-condensing)
	Storage humidity	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)	5% RH to 95% RH (non-condensing)
Altitude	Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
		Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)	Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)
	ESD protection	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV	Contact discharge: 6 kV Air discharge: 8 kV
	Surge protection	Service port: ±6 kV for common mode Power connector: ±6 kV for both common mode and differential mode	Service port: ±6 kV for common mode Power connector: ±6 kV for both common mode and differential mode	Service port: ±6 kV for common mode Power connector: ±6 kV for both common mode and differential mode	Service port: ±6 kV for common mode Power connector: ±6 kV for both common mode and differential mode	Service port: ±6 kV for common mode Power connector: ±6 kV for both common mode and differential mode
<b>Software Specifications</b>						
<b>Basic Configurations</b>	PoE watchdog	No	No	No	Yes	Yes
	Online upgrade	Yes	Yes	Yes	Yes	Yes
<b>System Performance Capacity</b>	Recommended camera limit	200 W H265: 350 400 W H265: 170	200 W H265: 400 400 W H265: 200	200 W H265: 350 400 W H265: 170	200 W H265: 350 400 W H265: 170	200 W H265: 400 400 W H265: 200
	<b>Interface</b>	Jumbo frame length (MTU)	9216 bytes (interface configuration mode)	9216 bytes (interface configuration mode)	9216 bytes (interface configuration mode)	9216 bytes (interface configuration mode)

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	EEE	Yes	Yes	Yes	Yes	Yes
	Cable test	Yes	Yes	Yes	Yes	Yes
<b>Reliability</b>	Number of VCS members	2	2	2	2	2
	System dual backup	Yes (Only supported on devices with a factory-installed software version of ReyeeOS 2.320 or later)	Yes (Only supported on devices with a factory-installed software version of ReyeeOS 2.320 or later)	Yes (Only supported on devices with a factory-installed software version of ReyeeOS 2.320 or later)	Yes (Only supported on devices with a factory-installed software version of ReyeeOS 2.320 or later)	Yes (Only supported on devices with a factory-installed software version of ReyeeOS 2.320 or later)
	Enabling dual backup for the partition Uboot (based on a single flash memory)	Yes	Yes	Yes	Yes	Yes
	ERPS	Yes: Stand-alone No: Hot standby	Yes: Stand-alone No: Hot standby	Yes: Stand-alone No: Hot standby	Yes: Stand-alone No: Hot standby	Yes: Stand-alone No: Hot standby
	RADIUS	Yes	Yes	Yes	Yes	Yes
<b>Authentication</b>	802.1X authentication	Yes	Yes	Yes	Yes	Yes
	Port-based 802.1X	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	authentication					
	MAC address-based 802.1X authentication	Yes	Yes	Yes	Yes	Yes
	Guest VLAN	Yes	Yes	Yes	Yes	Yes
<b>Multicast</b>	IGMPv1 snooping	Yes	Yes	Yes	Yes	Yes
	IGMPv2 snooping	Yes	Yes	Yes	Yes	Yes
	Basic IGMPv3 snooping	Yes	Yes	Yes	Yes	Yes
	Full IGMPv3 snooping	Yes	Yes	Yes	Yes	Yes
	IGMP filtering	Yes	Yes	Yes	Yes	Yes
	IGMPv1, v2, and v3	Yes	Yes	Yes	Yes	Yes
<b>Gateway Features</b>	802.1p priority-based traffic classification	Yes	Yes	Yes	Yes	Yes
	DSCP priority-based traffic classification	Yes	Yes	Yes	Yes	Yes
	Egress queues based on 802.1p	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	and DSCP priorities					
	SP	Yes	Yes	Yes	Yes	Yes
	WRR	Yes	Yes	Yes	Yes	Yes
	SP+WRR	Yes	Yes	Yes	Yes	Yes
	Global QoS	Yes	Yes	Yes	Yes	Yes
<b>IP Routing</b>	Maximum number of IPv4 static routes	500	500	500	500	500
	IPv6 routing table size (network route)	128	500	128	128	500
	Maximum number of IPv6 static routes	128	500	128	128	500
	IPv4 static route	Yes	Yes	Yes	Yes	Yes
	IPv6 static route	Yes	Yes	Yes	Yes	Yes
	OSPFv2	Yes	Yes	Yes	Yes	Yes
	OSPFv3	Yes	Yes	Yes	Yes	Yes
<b>IP Service</b>	Maximum number of ARP entries	2000	2000	2000	2000	2000
	IPv4 routing table size (host route)	6000	12000	6000	6000	12000
	ARP	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	IPv4 ping	Yes	Yes	Yes	Yes	Yes
	IPv4 traceroute	Yes	Yes	Yes	Yes	Yes
	ICMPv6	Yes	Yes	Yes	Yes	Yes
	IPv6 ping	Yes	Yes	Yes	Yes	Yes
	IPv6 traceroute	Yes	Yes	Yes	Yes	Yes
	DNS client	Yes	Yes	Yes	Yes	Yes
	DNSv6 client	Yes	Yes	Yes	Yes	Yes
	DHCP relay	Yes	Yes	Yes	Yes	Yes
	DHCP server	Yes	Yes	Yes	Yes	Yes
	DHCP client	Yes	Yes	Yes	Yes	Yes
Security	Maximum number of ACEs	Number of ACEs in the inbound direction of an interface: 1900 Number of ACEs in the outbound direction of an interface: 0	Number of ACEs in the inbound direction of an interface: 1900 Number of ACEs in the outbound direction of an interface: 0	Number of ACEs in the inbound direction of an interface: 1900 Number of ACEs in the outbound direction of an interface: 0	Number of ACEs in the inbound direction of an interface: 1900 Number of ACEs in the outbound direction of an interface: 0	Number of ACEs in the inbound direction of an interface: 1900 Number of ACEs in the outbound direction of an interface: 0
	Port isolation	Yes	Yes	Yes	Yes	Yes
	Broadcast storm control	Yes	Yes	Yes	Yes	Yes
	Multicast storm control	Yes	Yes	Yes	Yes	Yes
	Unknown unicast	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	storm control					
	DHCP snooping	Yes	Yes	Yes	Yes	Yes
	Standard ACL	Yes	Yes	Yes	Yes	Yes
	Extended MAC ACL	Yes	Yes	Yes	Yes	Yes
	Extended IP ACL	Yes	Yes	Yes	Yes	Yes
	IPv6 ACL	Yes	Yes	Yes	Yes	Yes
	IP-MAC-port binding	Yes	Yes	Yes	Yes	Yes
	ARP anti-spoofing	Yes	Yes	Yes	Yes	Yes
	IP source guard	Yes	Yes	Yes	Yes	Yes
	CPU Protection Policy	Yes	Yes	Yes	Yes	Yes
<b>Ethernet Switching</b>	Maximum number of VLANs	4094	4094	4094	4094	4094
	Maximum number of MAC address entries	16000	16000	16000	16000	16000
	Interface flow control	Yes	Yes	Yes	Yes	Yes
	IEEE 802.1Q VLAN	Yes	Yes	Yes	Yes	Yes
	VLAN configuration supported	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
	on LAN ports					
	Voice VLAN	Yes	Yes	Yes	Yes	Yes
	STP (IEEE 802.1d)	Yes	Yes	Yes	Yes	Yes
	RSTP (IEEE 802.1w)	Yes	Yes	Yes	Yes	Yes
	MSTP (IEEE 802.1s)	Yes	Yes	Yes	Yes	Yes
	LLDP	Yes	Yes	Yes	Yes	Yes
	LLDP-MED	Yes	Yes	Yes	Yes	Yes
	Static MAC address	Yes	Yes	Yes	Yes	Yes
	MAC address filtering	Yes	Yes	Yes	Yes	Yes
	Static aggregation	Yes	Yes	Yes	Yes	Yes
	LACP	Yes	Yes	Yes	Yes	Yes
	Inbound or outbound rate limiting based on interface traffic	Yes	Yes	Yes	Yes	Yes
<b>Network Management and Monitoring</b>	Port mirroring	Yes	Yes	Yes	Yes	Yes
	Mirroring	Yes	Yes	Yes	Yes	Yes
	HTTP login	Yes	Yes	Yes	Yes	Yes
	HTTPS login	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
RLOG	Yes	Yes	Yes	Yes	Yes	Yes
SON	Yes	Yes	Yes	Yes	Yes	Yes
Syslog	Yes	Yes	Yes	Yes	Yes	Yes
Client auto-discovery	Yes	Yes	Yes	Yes	Yes	Yes
PoE service failure	No	No	No	Yes	Yes	Yes
PoE power overload	No	No	No	Yes	Yes	Yes
Camera detection	Yes	Yes	Yes	Yes	Yes	Yes
Loop alarm	Yes	Yes	Yes	Yes	Yes	Yes
MAC address entries	Yes	Yes	Yes	Yes	Yes	Yes
IP address pool conflicts	Yes	Yes	Yes	Yes	Yes	Yes
Full ARP table	Yes	Yes	Yes	Yes	Yes	Yes
eWeb management	Yes	Yes	Yes	Yes	Yes	Yes
Ruijie Cloud management	Yes	Yes	Yes	Yes	Yes	Yes
Ruijie Rejee App management	Yes	Yes	Yes	Yes	Yes	Yes
SNMPv1, v2c, and v3	Yes	Yes	Yes	Yes	Yes	Yes

Specifications		RG-NBS5200-24GT4XS	RG-NBS5200-48GT4XS	RG-NBS5200-24SFP/8GT4XS	RG-NBS5200-24GT4XS-P	RG-NBS5200-48GT4XS-UP
<b>Package Contents</b>						
<b>Device</b>	Device	1	1	1	1	1
<b>Manual</b>	User Manual	1	1	1	1	1
	Warranty Card	1	1	1	1	1
<b>Accessories</b>	Rack-mount bracket	2	2	2	2	2
	Rubber pad	4	4	4	4	4
	Power cord retention clip	1	1	1	1	1
	Screw	8 M4 x 8 mm cross recessed countersunk head screws	8 M4 x 8 mm cross recessed countersunk head screws	8 M4 x 8 mm cross recessed countersunk head screws	8 M4 x 8 mm cross recessed countersunk head screws	8 M4 x 8 mm cross recessed countersunk head screws
	Grounding cable	1 x 1 m (3.28 ft.)	1 x 1 m (3.28 ft.)	1 x 1 m (3.28 ft.)	1 x 1 m (3.28 ft.)	1 x 1 m (3.28 ft.)
	Power cord	1 x 1.5 m (4.92 ft.)	1 x 1.5 m (4.92 ft.)	1 x 1.5 m (4.92 ft.)	1 x 1.5 m (4.92 ft.)	1 x 1.5 m (4.92 ft.)

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