

RG-NBS6002

Layer 3 Cloud Managed Switch

DATASHEET

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Highlights

- Modular design provides scalability and flexibility
- Static 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-NBS6002 Two-Slot Modular Core Switch



4 Optional
Line Cards



32,000
MAC Address



8,000
ARP Table



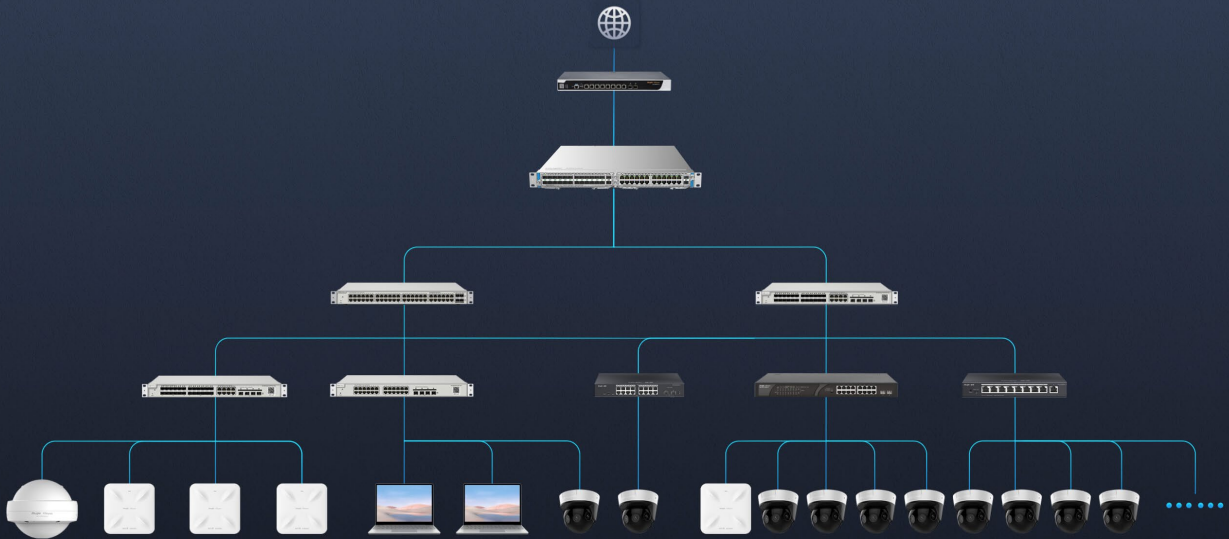
176 Gbps
Switching Capacity



132 Mpps
Packet Forwarding Rate

High Cost-Effective Core Switch

Enjoy the performance of two with the price of one



Modular Design: High performance, Scalability, and Flexibility

Support 4 types of line cards, 11 Combinations

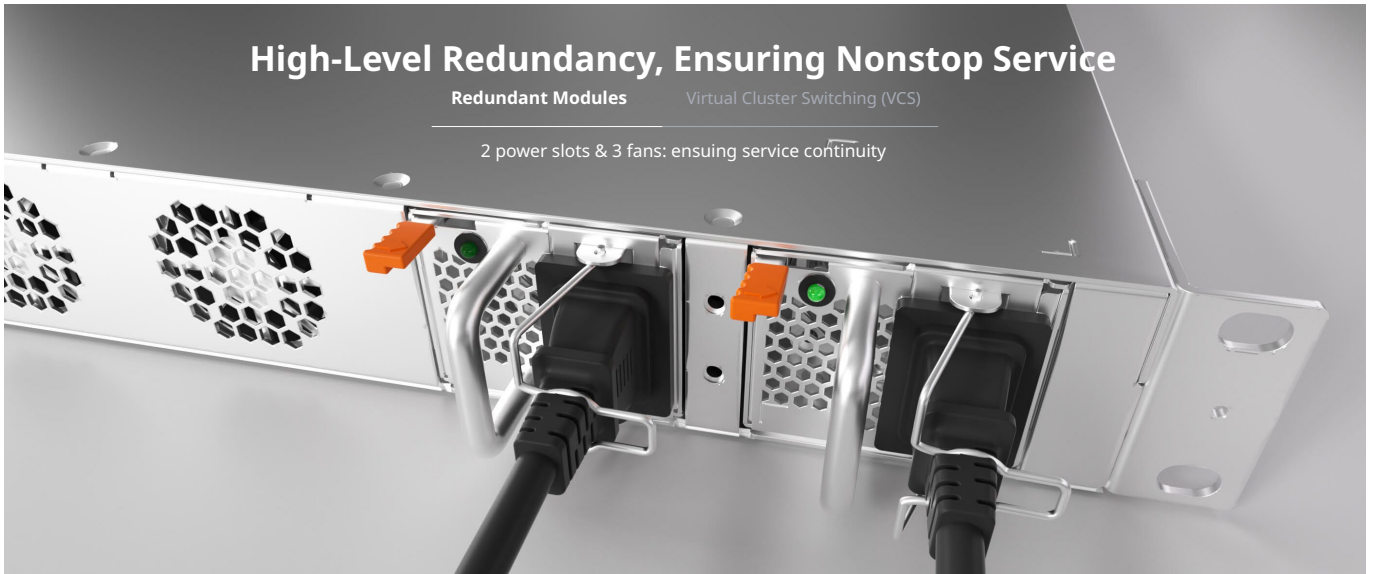


Highlight Features

High-Level Redundancy, Ensuring Nonstop Service

Redundant Modules Virtual Cluster Switching (VCS)

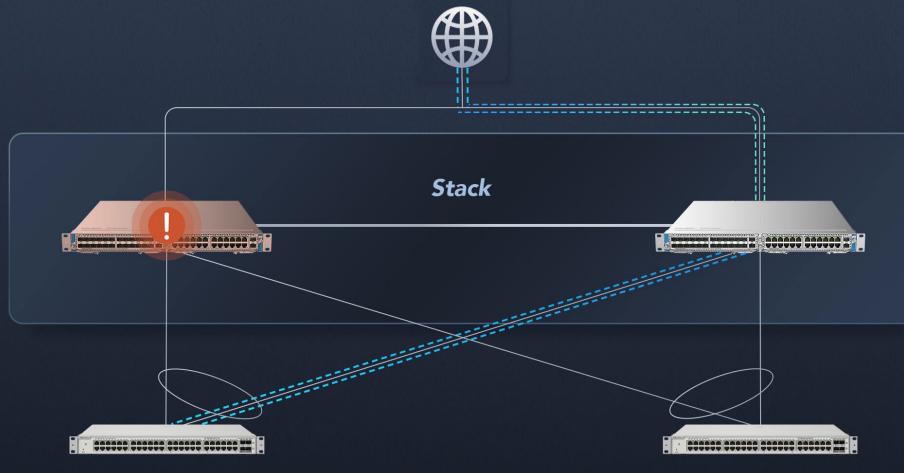
2 power slots & 3 fans: ensuring service continuity



High-Level Redundancy, Ensuring Nonstop Service

Redundant Modules Virtual Cluster Switching (VCS)

Virtual Cluster Switching (VCS): service failover within seconds



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-NBS6002
Hardware Specifications		
Product Information	Warranty	5 years
	Product category	Layer 3
Port Specifications	Total number of RJ45 ports	Determine the quantity based on the type and number of line cards.
	Number of 10GE SFP+ ports	Determine the quantity based on the type and number of line cards.
	Number of 10/100/1000BASE-T ports	Determine the quantity based on the type and number of line cards.
Interface Specifications	Module slots	2 line card slots 2 system power module slots
	Reset button	1
Certification and Regulatory Compliance	EMC	EN 55032
		EN 61000-3-2
		EN 61000-3-3
EN 55035		
Safety compliance	EN 300 386	
	IEC 62368-1	
Certification	CE	
Power Supply and Consumption	Power input	RG-PA150I-FS (AC input):
		<ul style="list-style-type: none"> • Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz • Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Maximum input current: 3 A
	Maximum power consumption	126 W
Power output	RG-PA150I-FS: 90 V AC to 264 V AC: 12 V DC (output voltage), 12.5 A (maximum output current)	

Specifications		RG-NBS6002
Power Supply and Consumption	Power supply	Power module
Dimensions and Weight	Casing	Metal
	Product dimensions (W x D x H)	442 mm x 460 mm x 44 mm (17.4 in. x 18.11 in. x 1.73 in.)
	Weight	5.4 kg (11.9 lbs) (including the empty chassis, without packaging materials)
	Shipping weight	6.82 kg (15.04 lbs) (including packaging materials and empty chassis)
System Specifications	CPU	Switching chip, single-core processor, 1 GHz clock frequency
	RAM	1 GB
	Flash memory	256 MB
	Forwarding rate	132 Mpps
	Switching capacity	176 Gbps(bit/s)
Environment and Reliability	Fan	3 x fixed fan
	Cooling	Device: Air cooling, front-to-rear airflow Line card: Air cooling, front-to-rear airflow + left-to-rear airflow + right-to-rear airflow Power module: Air cooling, front-to-rear airflow + left-to-rear airflow + right-to-rear airflow
	Acoustic noise	25°C (77°F): 68 dB
	Mounting options	Rack
	Hot swapping of cables	Service ports support hot swapping of cables.
	MTBF	400,000 hours
	Operating temperature	0°C to +50°C (32°F to 122°F)
	Storage temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	10% RH to 90% RH (non-condensing)	
Storage humidity	5% RH to 95% RH (non-condensing)	

Specifications		RG-NBS6002
Environment and Reliability	Altitude	Operating 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
	Surge protection	Service port: ±6 kV for common mode Power connector: ±6 kV for both common mode and differential mode
Software Specifications		
Basic Configurations	Online upgrade	Yes
System Performance Capacity	Recommended camera limit	200 W H265: 520
		400 W H265: 260
Interface	Jumbo frame length (MTU)	9216 bytes (interface configuration mode)
	EEE	Yes
	Cable test	Yes
Reliability	Number of VCS members	2
	System dual backup	Yes
	Enabling dual backup for the partition Uboot (based on a single flash memory)	Yes
Authentication	RADIUS	Yes
	802.1X authentication	Yes

Specifications		RG-NBS6002
Authentication	Port-based 802.1X authentication	Yes
	MAC address-based 802.1X authentication	Yes
	Guest VLAN	Yes
Multicast	IGMPv1 snooping	Yes
	IGMPv2 snooping	Yes
	Basic IGMPv3 snooping	Yes
	Full IGMPv3 snooping	Yes
	IGMP filtering	Yes
	IGMPv1, v2, and v3	Yes
Gateway Features	802.1p priority-based traffic classification	Yes
	DSCP priority-based traffic classification	Yes
	Egress queues based on 802.1p and DSCP priorities	Yes
	SP	Yes
	WRR	Yes
	SP+WRR	Yes
	Global QoS	Yes
IP Routing	Maximum number of IPv4 static routes	500
	IPv6 routing table size (network route)	2000
	Maximum number of IPv6 static routes	500
	IPv4 static route	Yes
	IPv6 static route	Yes
	OSPFv2	Yes
	OSPFv3	Yes
IP Service	Maximum number of ARP entries	4000
	IPv4 routing table size (host route)	12000

Specifications		RG-NBS6002
IP Service	ARP	Yes
	IPv4 ping	Yes
	IPv4 traceroute	Yes
	ICMPv6	Yes
	IPv6 ping	Yes
	IPv6 traceroute	Yes
	DNS client	Yes
	DNSv6 client	Yes
	DHCP relay	Yes
	DHCP server	Yes
	DHCP client	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
	Port isolation	Yes
	Broadcast storm control	Yes
	Multicast storm control	Yes
	Unknown unicast storm control	Yes
	DHCP snooping	Yes
	Standard ACL	Yes
	Extended MAC ACL	Yes
	Extended IP ACL	Yes
	IPv6 ACL	Yes
	IP-MAC-port binding	Yes
	ARP anti-spoofing	Yes

Specifications		RG-NBS6002
Security	IP source guard	Yes
	CPU Protection Policy	Yes
Ethernet Switching	Maximum number of VLANs	4094
	Maximum number of MAC address entries	32000
	Interface flow control	Yes
	IEEE 802.1Q VLAN	Yes
	Port-based VLAN	Yes
	Voice VLAN	Yes
	STP (IEEE 802.1d)	Yes
	RSTP (IEEE 802.1w)	Yes
	MSTP (IEEE 802.1s)	Yes
	LLDP	Yes
	LLDP-MED	Yes
	Static MAC address	Yes
	MAC address filtering	Yes
	Static aggregation	Yes
	LACP	Yes
	Inbound or outbound rate limiting based on interface traffic	Yes
Network Management and Monitoring	Port mirroring	Yes
	Mirroring	Yes
	HTTP login	Yes
	HTTPS login	Yes
	RLOG	Yes
	SON	Yes
	Syslog	Yes

Specifications		RG-NBS6002
	Client auto-discovery	Yes
	Camera detection	Yes
	Loop alarm	Yes
	MAC address entries	Yes
	IP address pool conflicts	Yes
	Full ARP table	Yes
	eWeb management	Yes
	Ruijie Cloud management	Yes
	Ruijie Reeye App management	Yes
	SNMPv1, v2c, and v3	Yes
Package Contents		
Device	Device	1
Manual	User Manual	1
	Warranty Card	1
Accessories	Rack-mount bracket	2
	Rubber pad	4
	Screw	8 M4 x 8 mm cross recessed countersunk head screws 1 M4 x 10 mm cross recessed countersunk head screw
	Grounding cable	78.74 in. x 1

Line Card & Service Module

M6000-24GT2XS	24 Gigabit Ethernet copper port (RJ45) + 2 10-Gigabit Ethernet fiber port (SFP+,LC)
M6000-16GT8SFP2XS	16 Gigabit Ethernet copper port (RJ45) + 8 Gigabit Ethernet fiber port (SFP+,LC) + 2 10-Gigabit Ethernet fiber port (SFP+,LC)
M6000-24SFP2XS	24 Gigabit Ethernet fiber port (SFP+,LC) + 2 10-Gigabit Ethernet fiber port (SFP+,LC)
M6000-16SFP8GT2XS	16 Gigabit Ethernet fiber port (SFP,LC) + 8Gigabit Ethernet copper port (RJ45) + 2 10-Gigabit Ethernet fiber port (SFP+,LC)

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