

# 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



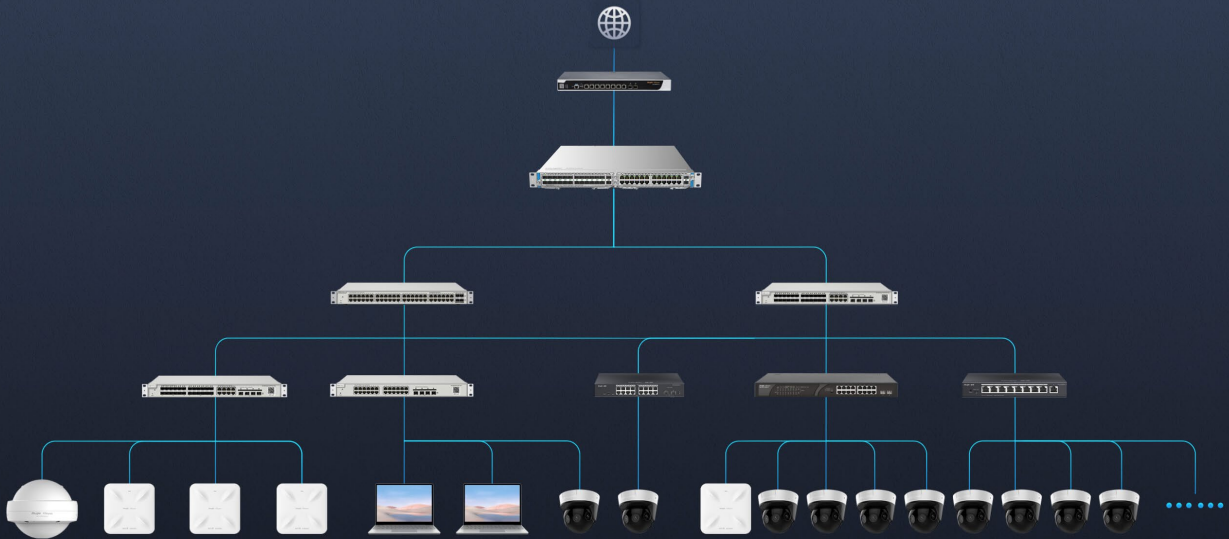
176 Gbps  
Switching Capacity



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

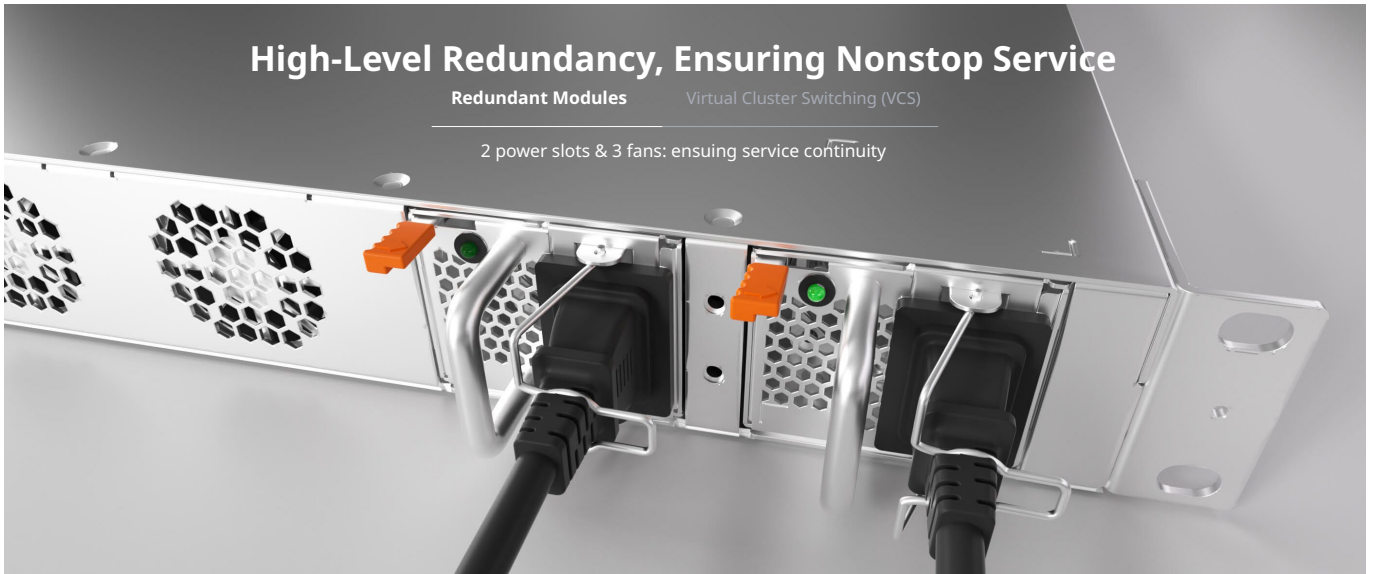


# Highlight Features

## High-Level Redundancy, Ensuring Nonstop Service

Redundant Modules      Virtual Cluster Switching (VCS)

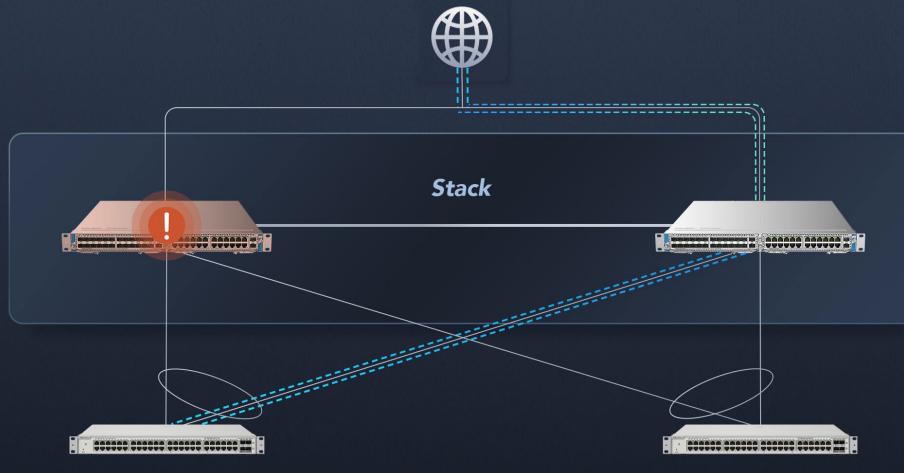
2 power slots & 3 fans: ensuring service continuity



## 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
<b>Hardware Specifications</b>		
<b>Product Information</b>	Warranty	5 years
	Product category	Layer 3
<b>Port Specifications</b>	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.
<b>Interface Specifications</b>	Module slots	2 line card slots 2 system power module slots
	Reset button	1
<b>Certification and Regulatory Compliance</b>	EMC	EN 55032
		EN 61000-3-2
		EN 61000-3-3
EN 55035		
Safety compliance	EN 300 386	
	IEC 62368-1	
Certification	CE	
<b>Power Supply and Consumption</b>	Power input	RG-PA150I-FS (AC input): <ul style="list-style-type: none"> <li>Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz</li> <li>Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz</li> <li>Maximum input current: 3 A</li> </ul>
	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
<b>Power Supply and Consumption</b>	Power supply	Power module
<b>Dimensions and Weight</b>	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)
<b>System Specifications</b>	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)
<b>Environment and Reliability</b>	Fan	3 x fixed fans
	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 (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
Authentication	RADIUS	Yes

Specifications		RG-NBS6002
	802.1X authentication	Yes
<b>Authentication</b>	Port-based 802.1X authentication	Yes
	MAC address-based 802.1X authentication	Yes
	Guest VLAN	Yes
<b>Multicast</b>	IGMPv1 snooping	Yes
	IGMPv2 snooping	Yes
	Basic IGMPv3 snooping	Yes
	Full IGMPv3 snooping	Yes
	IGMP filtering	Yes
	IGMPv1, v2, and v3	Yes
<b>Gateway Features</b>	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
<b>IP Routing</b>	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
<b>IP Service</b>	Maximum number of ARP entries	4000

Specifications		RG-NBS6002
	IPv4 routing table size (host route)	12000
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

Specifications		RG-NBS6002
	ARP anti-spoofing	Yes
<b>Security</b>	IP source guard	Yes
	CPU Protection Policy	Yes
<b>Ethernet Switching</b>	Maximum number of VLANs	4094
	Maximum number of MAC address entries	32000
	Interface flow control	Yes
	IEEE 802.1Q VLAN	Yes
	VLAN configuration supported on LAN ports	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	
<b>Network Management and Monitoring</b>	Port mirroring	Yes
	Mirroring	Yes
	HTTP login	Yes
	HTTPS login	Yes
	RLOG	Yes

Specifications		RG-NBS6002
	SON	Yes
	Syslog	Yes
	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		
<b>Device</b>	Device	1
<b>Manual</b>	User Manual	1
	Warranty Card	1
<b>Accessories</b>	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	1 x 2 m (6.56 ft.)

## Line Card & Service Module

<b>M6000-24GT2XS</b>	24 x 10/100/1000BASE-T ports (RJ45), 2 x 10GE SFP+ ports (LC)
<b>M6000-16GT8SFP2XS</b>	16 x 10/100/1000BASE-T ports (RJ45), 8 x 1GE SFP ports (LC), 2 x 10GE SFP+ ports (LC)
<b>M6000-24SFP2XS</b>	24 x 1GE SFP ports (LC), 2 x 10GE SFP+ ports (LC)
<b>M6000-16SFP8GT2XS</b>	16 x 1GE SFP ports (LC), 8 x 10/100/1000BASE-T ports (RJ45), 2 x 10GE SFP+ ports (LC)

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