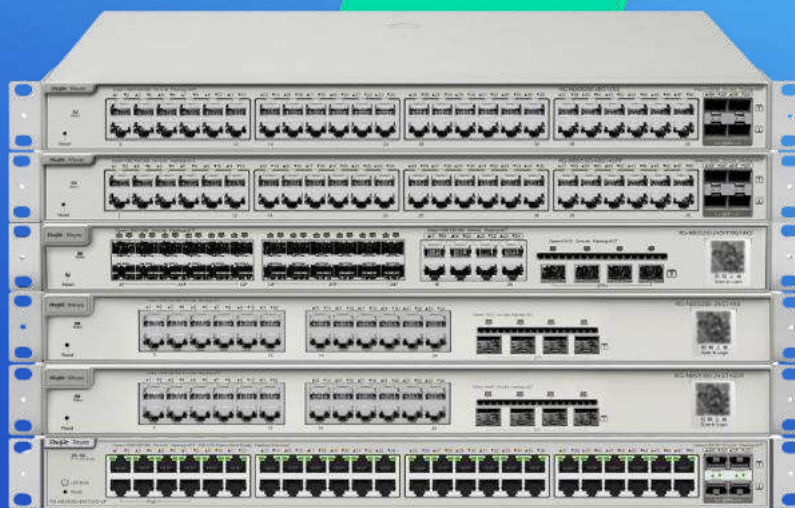


# RG-NBS51/52 series Layer 3 Cloud Managed Switches

DATASHEET

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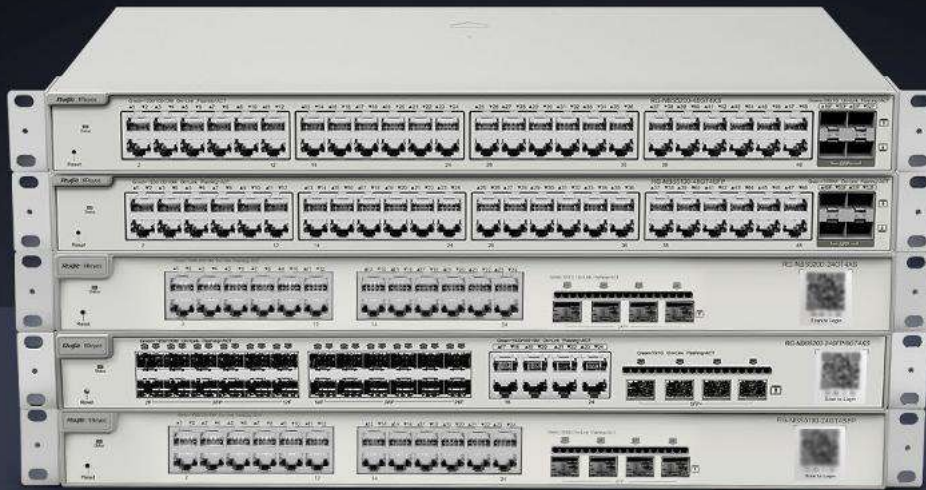
## Highlights

- 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 our Network

Security Stability



### Multiple Security Policies Protect our Network

Security Stability



## Highlight Features

### Cloud Make our 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-NBS5100-24GT4SFP | RG-NBS5100-48GT4SFP | RG-NBS5100-24GT4SFP-P | RG-NBS5200-24GT4XS | RG-NBS5200-48GT4XS | RG-NBS5200-24SFP/8GT4XS | RG-NBS5200-48GT4XS-UP                                | RG-NBS5200-24GT4XS-P |
|----------------------------------------|---------------------|---------------------|-----------------------|--------------------|--------------------|-------------------------|------------------------------------------------------|----------------------|
| Basic                                  |                     |                     |                       |                    |                    |                         |                                                      |                      |
| Total Number of Electrical Ports       | 24                  | 48                  | 24                    | 24                 | 48                 | 8                       | 48                                                   | 24                   |
| Total Number of Optical Ports          | 4                   | 4                   | 4                     | 4                  | 4                  | 28                      | 4                                                    | 4                    |
| Number of Combo Ports                  | N/A                 | N/A                 | N/A                   | N/A                | N/A                | 8                       | N/A                                                  | N/A                  |
| Number of 1 Gbps Optical Ports (SFP)   | 4                   | 4                   | 4                     | N/A                | N/A                | 24                      | N/A                                                  | N/A                  |
| Number of 10 Gbps Optical Ports (SFP+) | N/A                 | N/A                 | N/A                   | 4                  | 4                  | 4                       | 4                                                    | 4                    |
| Number of 10/100/1000Base-T Ports      | 24                  | 48                  | 24                    | 24                 | 48                 | 8                       | 48                                                   | 24                   |
| Number of PoE/PoE+ Ports               | N/A                 | N/A                 | 24                    | N/A                | N/A                | N/A                     | 48                                                   | 24                   |
| Number of PoE/PoE+/PoE++ Ports         | N/A                 | N/A                 | N/A                   | N/A                | N/A                | N/A                     | 8                                                    | N/A                  |
| Max. PoE Power Budget                  | N/A                 | N/A                 | 370W                  | N/A                | N/A                | N/A                     | 740W                                                 | 370W                 |
| PoE Power Pins                         | N/A                 | N/A                 | 1 2+ 3 6-             | N/A                | N/A                | N/A                     | 1-8port (1 2- 3 6+ 4 5+ 7 8-) 9-48 port (1 2+ 3 6- ) | 1 2+ 3 6-            |

| Specifications                   | RG-NBS5100-24GT4SFP      | RG-NBS5100-48GT4SFP      | RG-NBS5100-24GT4SFP-P    | RG-NBS5200-24GT4XS       | RG-NBS5200-48GT4XS       | RG-NBS5200-24SFP/8GT4XS  | RG-NBS5200-48GT4XS-UP    | RG-NBS5200-24GT4XS-P     |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Layer                            | L3                       | L3                       | L3                       | L3                       | L3                       | L3                       | L3                       | L3                       |
| Switching Capacity               | 56Gbps                   | 104Gbps                  | 56Gbps                   | 128Gbps                  | 216Gbps                  | 128Gbps                  | 176Gbps                  | 128Gbps                  |
| Forwarding Rate                  | 42Mpps                   | 78Mpps                   | 42Mpps                   | 96Mpps                   | 132Mpps                  | 96Mpps                   | 132Mpps                  | 96Mpps                   |
| Buffer Size                      | 12 Mbits                 | 16 Mbits                 | 12 Mbits                 | 12 Mbits                 | 16 Mbits                 | 12 Mbits                 | 16 Mbits                 | 12 Mbits                 |
| ARP Table Size                   | 2000                     | 2000                     | 2000                     | 2000                     | 2000                     | 2000                     | 2000                     | 2000                     |
| Flash Memory                     | 256MB                    | 256MB                    | 256MB                    | 256MB                    | 256MB                    | 256MB                    | 256MB                    | 256MB                    |
| SDRAM                            | 512MB                    | 1GB                      | 512MB                    | 512MB                    | 1GB                      | 512MB                    | 512MB                    | 512MB                    |
| MAC Address Table Size           | 16000                    | 16000                    | 16000                    | 16000                    | 16000                    | 16000                    | 16000                    | 16000                    |
| Max. Number of VLANs             | 4094                     | 4094                     | 4094                     | 4094                     | 4094                     | 4094                     | 4094                     | 4094                     |
| Dimensions (W x D x H)           | 440mm x 207.5mm x 43.6mm | 440mm x 267.5mm x 43.6mm | 440mm x 357.6mm x 43.6mm | 440mm x 207.5mm x 43.6mm | 440mm x 267.5mm x 43.6mm | 440mm x 267.5mm x 43.6mm | 440mm x 357.6mm x 43.6mm | 440mm x 357.6mm x 43.6mm |
| Net Weight                       | 2.9 kg                   | 3.6 kg                   | 4.75 kg                  | 2.9 kg                   | 3.6 kg                   | 3.35 kg                  | 5.64 kg                  | 4.75 kg                  |
| Mean Time Between Failure (MTBF) | 400000H                  | 400000H                  | 400000H                  | 400000H                  | 400000H                  | 400000H                  | 400000H                  | 400000H                  |
| Safety Compliance                | IEC 62368-1              | IEC 62368-1              | IEC 62368-1              | IEC 62368-1              | IEC 62368-1              | IEC 62368-1              | IEC 62368-1              | IEC 62368-1              |
| Warranty                         | 5                        | 5                        | 5                        | 5                        | 5                        | 5                        | 5                        | 5                        |
| Layer2 features                  |                          |                          |                          |                          |                          |                          |                          |                          |
| Jumbo Frame Length (MTU)         | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) | 9216 Bytes(Per-port MTU) |
| Flow Control                     | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      |

[illegible]

| Specifications          | RG-NBS5100-24GT4SFP | RG-NBS5100-48GT4SFP | RG-NBS5100-24GT4SFP-P | RG-NBS5200-24GT4XS | RG-NBS5200-48GT4XS | RG-NBS5200-24SFP/8GT4XS | RG-NBS5200-48GT4XS-UP | RG-NBS5200-24GT4XS-P |
|-------------------------|---------------------|---------------------|-----------------------|--------------------|--------------------|-------------------------|-----------------------|----------------------|
| Port-based VLAN         | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| MAC-based VLAN          | No                  | No                  | No                    | No                 | No                 | No                      | No                    | No                   |
| IP-based VLAN           | No                  | No                  | No                    | No                 | No                 | No                      | No                    | No                   |
| Voice VLAN              | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| RLDP                    | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| LLDP                    | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| LLDP-MED                | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| LLDP-PoE                | No                  | No                  | No                    | No                 | No                 | No                      | No                    | No                   |
| Cable Test              | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IGMP Snooping v1        | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IGMP Snooping v2        | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IGMP Snooping v3(Basic) | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Max. Number of SVIs     | 32                  | 32                  | 32                    | 32                 | 32                 | 32                      | 32                    | 32                   |
| IPv4 Ping               | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IPv6 Ping               | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Traceroute              | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IP Standard ACL         | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| MAC Extended ACL        | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IP Extended ACL         | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |

| Specifications                            | RG-NBS5100-24GT4SFP | RG-NBS5100-48GT4SFP | RG-NBS5100-24GT4SFP-P | RG-NBS5200-24GT4XS | RG-NBS5200-48GT4XS | RG-NBS5200-24SFP/8GT4XS | RG-NBS5200-48GT4XS-UP | RG-NBS5200-24GT4XS-P |
|-------------------------------------------|---------------------|---------------------|-----------------------|--------------------|--------------------|-------------------------|-----------------------|----------------------|
| Port-Level Rate Limiting (Ingress/Egress) | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| DNS Client                                | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| SNMP v1                                   | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| SNMP v2c                                  | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| SNMP v3                                   | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Web Management                            | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| HTTP                                      | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| HTTPS                                     | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Ruijie Cloud Management                   | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Ruijie Reyee App Management               | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| IP-based Self-Organizing Network (SON)    | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Camera Detection                          | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Loop Prevention                           | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| Loop Notification                         | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |
| PoE Power Usage Alarm                     | No                  | No                  | No                    | No                 | No                 | No                      | Yes                   | Yes                  |
| IP Source Guard                           | Yes                 | Yes                 | Yes                   | Yes                | Yes                | Yes                     | Yes                   | Yes                  |

[illegible]

| Specifications                             | RG-NBS5100-24GT4SFP                                                                       | RG-NBS5100-48GT4SFP                                                                       | RG-NBS5100-24GT4SFP-P                                                                   | RG-NBS5200-24GT4XS                                                                                 | RG-NBS5200-48GT4XS                                                                        | RG-NBS5200-24SFP/8GT4XS                                                                   | RG-NBS5200-48GT4XS-UP                                                                   | RG-NBS5200-24GT4XS-P                                                                    |
|--------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Web Authentication                         | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| Layer 3 features                           |                                                                                           |                                                                                           |                                                                                         |                                                                                                    |                                                                                           |                                                                                           |                                                                                         |                                                                                         |
| Static Routing                             | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| DHCP Server                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| RIP                                        | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| RIPng(RIP Next Generation)                 | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| OSPFv2(Open Shortest Path First Version 2) | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| OSPFv3                                     | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| Virtual Cluster Switching (VCS)            | No                                                                                        | No                                                                                        | No                                                                                      | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| Hardware Specifications                    |                                                                                           |                                                                                           |                                                                                         |                                                                                                    |                                                                                           |                                                                                           |                                                                                         |                                                                                         |
| Reset Button                               | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| DIP Switch                                 | N/A                                                                                       | N/A                                                                                       | LED MODE                                                                                | N/A                                                                                                | N/A                                                                                       | N/A                                                                                       | LED MODE                                                                                | LED MODE                                                                                |
| Cable Hot-Swappable                        | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                                | Yes                                                                                       | Yes                                                                                       | Yes                                                                                     | Yes                                                                                     |
| Power Supply                               | Rated voltage range: 100-240VAC<br>Maximum voltage range: 90-264VAC<br>Frequency: 50/60Hz | Rated voltage range: 100-240VAC<br>Maximum voltage range: 90-264VAC<br>Frequency: 50/60Hz | Rated voltage range: 100-240V~<br>Maximum voltage range: 90-264V~<br>Frequency: 50/60Hz | Rated voltage range: 100-240VAC<br>Maximum voltage range: 90-264VAC<br>Frequency: 50/60Hz<br>Rated | Rated voltage range: 100-240VAC<br>Maximum voltage range: 90-264VAC<br>Frequency: 50/60Hz | Rated voltage range: 100-240VAC<br>Maximum voltage range: 90-264VAC<br>Frequency: 50/60Hz | Rated voltage range: 100-240V~<br>Maximum voltage range: 90-264V~<br>Frequency: 50/60Hz | Rated voltage range: 100-240V~<br>Maximum voltage range: 90-264V~<br>Frequency: 50/60Hz |





| Specifications | RG-<br>NBS5100-<br>24GT4SFP | RG-<br>NBS5100-<br>48GT4SFP | RG-<br>NBS5100-<br>24GT4SFP-P | RG-<br>NBS5200-<br>24GT4XS | RG-<br>NBS5200-<br>48GT4XS | RG-<br>NBS5200-<br>24SFP/8GT4<br>XS | RG-<br>NBS5200-<br>48GT4XS-UP | RG-<br>NBS5200-<br>24GT4XS-P |
|----------------|-----------------------------|-----------------------------|-------------------------------|----------------------------|----------------------------|-------------------------------------|-------------------------------|------------------------------|
| EMC            | EN<br>55032:201             |                             |                               |                            |                            |                                     |                               |                              |
|                | 5+AC:201                    | EN                          | EN                            | EN                         | EN                         | EN                                  | EN                            | EN                           |
|                | 6                           | 55032:2015                  | 55032:2015                    | 55032:2015                 | 55032:2015                 | 55032:2015                          | 55032:2015                    | 55032:2015                   |
|                | EN 61000-                   | +AC:2016                    | +AC:2016                      | +AC:2016                   | +AC:2016                   | +AC:2016                            | +AC:2016                      | +AC:2016                     |
|                | 3-2:2014                    | EN 61000-3-                 | EN 61000-3-                   | EN 61000-3-                | EN 61000-3-                | EN 61000-3-                         | EN 61000-3-                   | EN 61000-3-                  |
|                |                             | 2:2014                      | 2:2014                        | 2:2014                     | 2:2014                     | 2:2014                              | 2:2014                        | 2:2014                       |
|                | EN 61000-                   | EN 61000-3-                 | EN 61000-3-                   | EN 61000-3-                | EN 61000-3-                | EN 61000-3-                         | EN 61000-3-                   | EN 61000-3-                  |
|                | 3-3:2013                    | 3:2013                      | 3:2013                        | 3:2013                     | 3:2013                     | 3:2013                              | 3:2013                        | 3:2013                       |
|                | EN                          | EN                          | EN                            | EN                         | EN                         | EN                                  | EN                            | EN                           |
|                | 55035:201                   | 55035:2017                  | 55035:2017                    | 55035:2017                 | 55035:2017                 | 55035:2017                          | 55035:2017                    | 55035:2017                   |
|                | 7                           | ETSI EN 300                 | ETSI EN 300                   | ETSI EN 300                | ETSI EN 300                | ETSI EN 300                         | ETSI EN 300                   | ETSI EN 300                  |
|                | ETSI EN                     | 386 V2.1.1                  | 386 V2.1.1                    | 386 V2.1.1                 | 386 V2.1.1                 | 386 V2.1.1                          | 386 V2.1.1                    | 386 V2.1.1                   |
|                | 300 386                     | (2016-07)                   | (2016-07)                     | (2016-07)                  | (2016-07)                  | (2016-07)                           | (2016-07)                     | (2016-07)                    |
|                | V2.1.1<br>(2016-07)         |                             |                               |                            |                            |                                     |                               |                              |

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 **Redefine your easy network**

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