

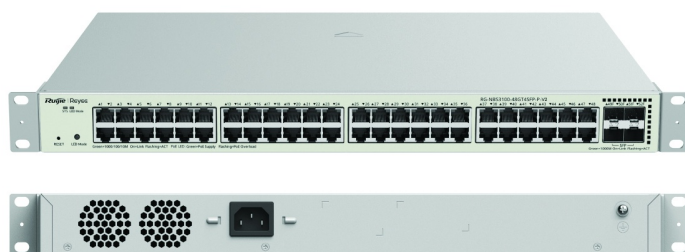
The RG-NBS31-48G4S-P2 is a 52-port Gigabit Layer 2 cloud-managed PoE switch designed for large businesses, CCTV and enterprise networks. It features 48 Gigabit PoE/PoE+ ports with a 370 W power budget and four Gigabit SFP uplinks for flexible fibre connectivity. Advanced VLAN, QoS, link aggregation, network security and redundancy features deliver reliable performance, while IP camera recognition and PoE watchdog simplify surveillance management. Lifetime-free Ruijie Cloud management enables convenient remote monitoring, configuration and maintenance.

#### 5-Year Manufacturer's Warranty

For full terms & conditions, please see – Ruijie Warranty T&Cs.

#### Features and Benefits

- » 48 Gigabit PoE/PoE+ ports with a 370 W power budget provide high-speed data and power for cameras, access points and other PoE devices.
- » Four Gigabit SFP uplink ports enable flexible, long-distance fibre connections between switches and network locations.
- » 104 Gbps switching capacity and 77.38 Mpps forwarding deliver reliable performance across large, high-traffic networks.
- » Lifetime-free Ruijie Cloud and Reyee App management enable remote configuration, monitoring and maintenance from anywhere.
- » IP camera recognition and PoE watchdog simplify CCTV management and automatically restart unresponsive connected cameras.
- » Advanced VLANs, QoS, link aggregation, loop protection, and security policies improve network performance, resilience, and security.



#### Specifications

##### Hardware Specifications

##### Port Specifications

|                                            |    |
|--------------------------------------------|----|
| Total number of RJ45 ports                 | 48 |
| Total number of optical ports              | 4  |
| Number of 1GE SFP ports                    | 4  |
| Number of 10GE SFP+ ports                  | No |
| Number of 10/100BASE-T ports               | No |
| Number of 10/100/1000BASE-T ports          | 48 |
| Number of 10/100/1000/2500 BASE-T ports    | No |
| Number of 100/1000/2.5G/5G/10GBASE-T ports | No |
| Module slots                               | No |
| Reset button                               | 1  |
| DIP switch                                 | No |

##### Power Supply and Consumption

|                                    |                            |
|------------------------------------|----------------------------|
| PoE Out standard                   | PoE/PoE+ (IEEE 802.3af/at) |
| Number of PoE Out ports            | 48                         |
| Number of PoE/PoE+ Out ports       | 48                         |
| Number of PoE/PoE+/PoE++ Out ports | No                         |
| PoE budget                         | 370 W                      |
| PoE power pins                     | 1-2 (+), 3-6 (-)           |

#### Power Supply and Consumption (continued)

|                           |                                                                                                                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power input               | 220 V AC power supply: <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: 6 A</li></ul> |
| Maximum power consumption | 46 W (with no PoE load)<br>450 W (with full PoE load)                                                                                                                                                                                  |
| Power output              | No                                                                                                                                                                                                                                     |
| Power supply              | Fixed power supply                                                                                                                                                                                                                     |

#### System Specifications

|                    |                 |
|--------------------|-----------------|
| RAM                | 512 MB          |
| Flash memory       | 256 MB          |
| Forwarding rate    | 77.38 Mpps      |
| Switching capacity | 104 Gbps(bit/s) |

#### Dimensions and Weight

|                                |                                                            |
|--------------------------------|------------------------------------------------------------|
| Casing                         | Metal                                                      |
| Product dimensions (W x D x H) | 440 mm x 293 mm x 44 mm (17.32 in. x 11.54 in. x 1.73 in.) |
| Weight                         | 4.32 kg (9.52 lbs) (without packaging materials)           |
| Shipping weight                | 5.86 kg (12.92 lbs)                                        |

#### Environment and Reliability

|                             |                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------|
| Hot swapping of fan modules | No                                                                                    |
| Fan                         | 2 x fixed fans                                                                        |
| Cooling                     | Air cooling, side-to-rear airflow                                                     |
| Acoustic noise              | 23°C(73.4°F) : 30 dB (with half PoE load)<br>50°C(122°F) : 48 dB (with full PoE load) |
| 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)                                                      |

#### Environment and Reliability (continued)

|                  |                                                                                                                              |
|------------------|------------------------------------------------------------------------------------------------------------------------------|
| Altitude         | Operating altitude: 0 m to +5,000 m (0 ft. to +16,404.20 ft.)<br>Storage altitude: 0 m to +5,000 m (0 ft. to +16,404.20 ft.) |
| Corrosion class  | No                                                                                                                           |
| ESD protection   | Contact discharge: 6 kV<br>Air discharge: 8 kV                                                                               |
| Surge protection | Service port: ±6 kV for common mode<br>Power connector: ±6 kV for both common mode and differential mode                     |

#### Certification and Regulatory Compliance

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| EMC               | EN 55032<br>EN 61000-3-2<br>EN 61000-3-3<br>EN 55035<br>EN 300 386 |
| Safety compliance | IEC 62368-1                                                        |
| Certification     | CE                                                                 |

#### Software Specifications

##### Authentication

|                                         |     |
|-----------------------------------------|-----|
| RADIUS                                  | Yes |
| 802.1X authentication                   | Yes |
| Port-based 802.1X authentication        | Yes |
| MAC address-based 802.1X authentication | Yes |
| Guest VLAN                              | Yes |

##### Basic Configurations

|                |     |
|----------------|-----|
| PoE watchdog   | Yes |
| Online upgrade | Yes |

##### Ethernet Switching

|                                       |       |
|---------------------------------------|-------|
| Maximum number of VLANs               | 4094  |
| Maximum number of MAC address entries | 16000 |
| Interface flow control                | Yes   |

## Ethernet Switching (continued)

|                                                              |     |
|--------------------------------------------------------------|-----|
| MAC address-based VLAN                                       | No  |
| IP subnet - based VLAN assignment                            | No  |
| IEEE 802.1Q VLAN                                             | Yes |
| Basic QinQ                                                   | No  |
| 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 |

## 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 |

## Interface

|                          |                                           |
|--------------------------|-------------------------------------------|
| Jumbo frame length (MTU) | 9216 bytes (interface configuration mode) |
| EEE                      | Yes                                       |
| Cable test               | Yes                                       |

## IP Routing

|                   |    |
|-------------------|----|
| IPv4 static route | No |
|-------------------|----|

## IP Routing (continued)

|                   |    |
|-------------------|----|
| IPv6 static route | No |
| OSPFv2            | No |
| OSPFv3            | No |

## IP Service

|                               |      |
|-------------------------------|------|
| Maximum number of ARP entries | 1000 |
| ARP                           | Yes  |
| IPv4 ping                     | Yes  |
| IPv4 traceroute               | Yes  |
| IPv6                          | Yes  |
| ICMPv6                        | Yes  |
| IPv6 ping                     | Yes  |
| IPv6 traceroute               | Yes  |
| DNS client                    | Yes  |
| DNSv6 client                  | Yes  |
| DHCP relay                    | No   |
| DHCP server                   | No   |
| DHCP client                   | Yes  |

## Multicast

|                       |     |
|-----------------------|-----|
| IGMPv1 snooping       | Yes |
| IGMPv2 snooping       | Yes |
| Basic IGMPv3 snooping | Yes |
| Full IGMPv3 snooping  | No  |
| IGMP filtering        | Yes |
| IGMPv1, v2, and v3    | No  |

## Network Management and Monitoring

|                       |                              |
|-----------------------|------------------------------|
| Fan speed adjustment  | Intelligent speed adjustment |
| Port mirroring        | Yes                          |
| Mirroring             | Yes                          |
| HTTP login            | Yes                          |
| HTTPS login           | Yes                          |
| RLOG                  | Yes                          |
| SON                   | Yes                          |
| Syslog                | Yes                          |
| Client auto-discovery | Yes                          |
| PoE service failure   | Yes                          |
| PoE power overload    | Yes                          |
| SSH                   | No                           |
| Camera detection      | Yes                          |
| Loop alarm            | Yes                          |

## Network Management and Monitoring (continued)

|                             |     |
|-----------------------------|-----|
| MAC address entries         | Yes |
| IP address pool conflicts   | Yes |
| Full ARP table              | No  |
| eWeb management             | Yes |
| Ruijie Cloud management     | Yes |
| Ruijie Reyee App management | Yes |
| SNMPv1, v2c, and v3         | Yes |

## Reliability

|                                                                               |     |
|-------------------------------------------------------------------------------|-----|
| System dual backup                                                            | Yes |
| Enabling dual backup for the partition Uboot (based on a single flash memory) | Yes |
| Load balancing                                                                | No  |
| ERPS                                                                          | Yes |

## Security

|                               |                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Maximum number of ACEs        | Number of ACEs in the inbound direction of an interface: 1900<br>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                                                                                                                          |
| IP source guard               | Yes                                                                                                                          |
| CPU Protection Policy         | Yes                                                                                                                          |

## System Performance Capacity

|              |                 |
|--------------|-----------------|
| Recommended  | 200 W H265: 200 |
| camera limit | 400 W H265: 100 |

## Package Contents

### Device

|        |   |
|--------|---|
| Device | 1 |
|--------|---|

### Accessories

|                           |                                                    |
|---------------------------|----------------------------------------------------|
| Rubber pad                | 4                                                  |
| Power cord retention clip | 1                                                  |
| Screw                     | 6 M4 x 8 mm cross recessed countersunk head screws |
| Grounding cable           | 1 x 1 m (3.28 ft.)                                 |
| Power cord                | 1 x 1.5 m (4.92 ft.)                               |
| Rack-mount bracket        | 2                                                  |

### Manual

|               |   |
|---------------|---|
| User Manual   | 1 |
| Warranty Card | 1 |