

RG-NBF6002M

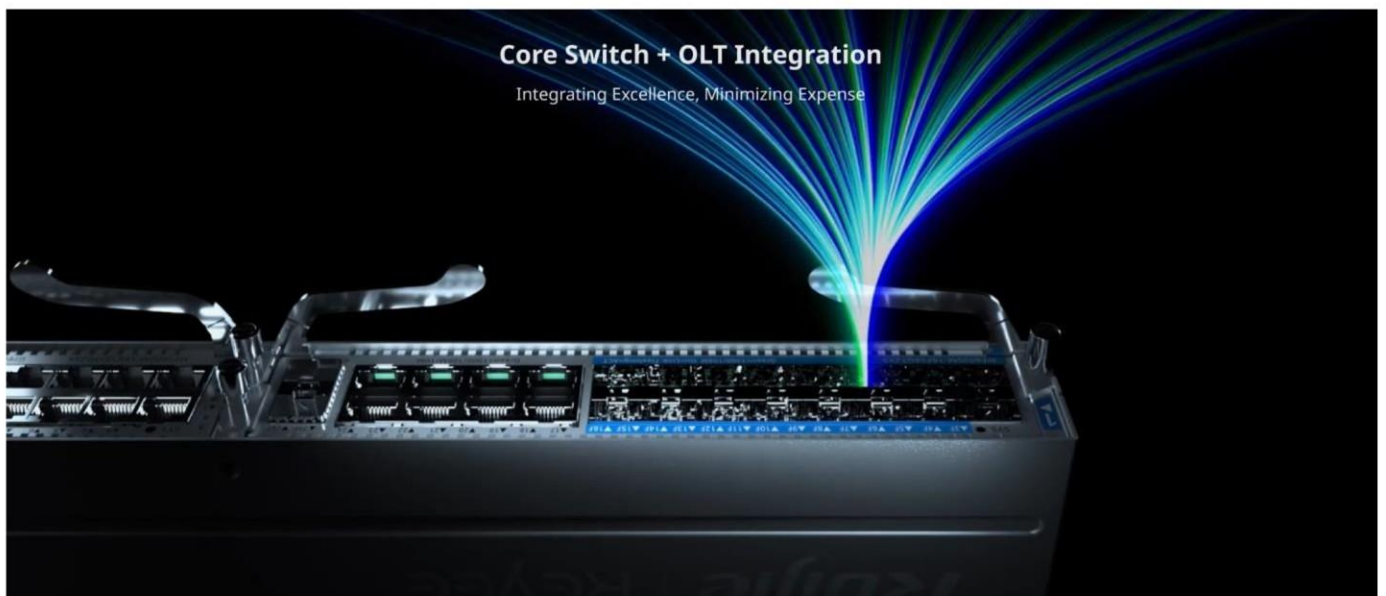
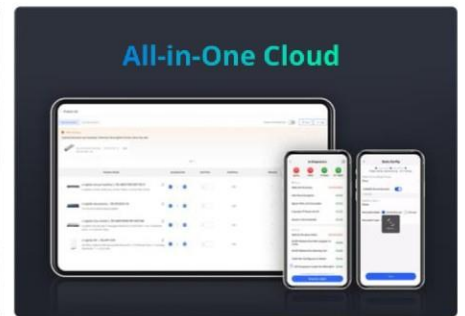
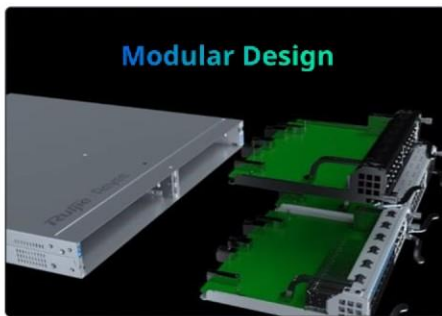
e-Lighten Layer 3 Managed Modular Switch



Highlights

- Passive Optical Networking Support
- Core Switch + OLT 2-in-1 for Flexible Networking
- Dual-Slot Design for Flexible Expansion
- Supports Up to 320 e-Lighten APs/Access Switches
- 10G Uplink
- Free Layer 3 Cloud Management

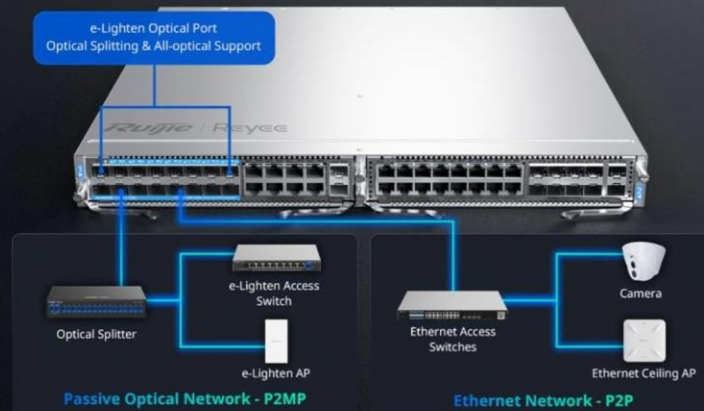
Highlight Features



Highlight Features

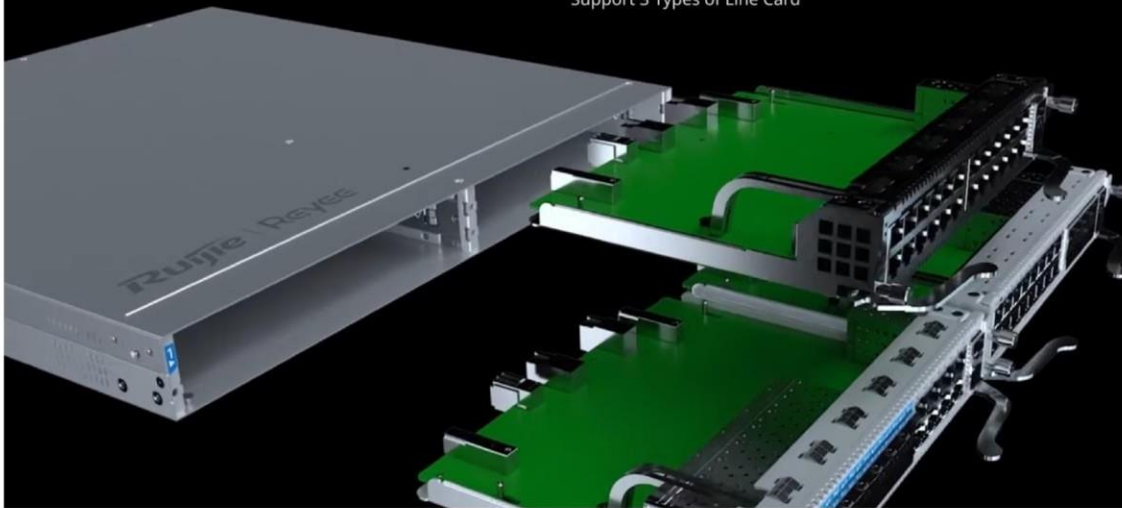
Flexible Networking, Hybrid of P2P & P2MP Networks

Customize the Network that Works Best for You



Modular Design: High Performance, Scalability, and Flexibility

Support 3 Types of Line Card



High-Level Redundancy, Service Always On

2 Power Slots: Ensuring Service Continuity



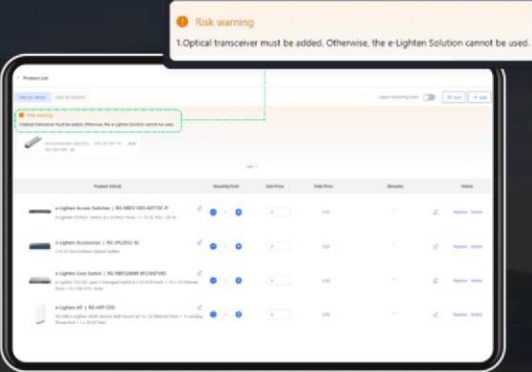
Highlight Features

Cloud, Make Your Business Easy

Pre-Sale Deployment Post-Sale

Easy BOM

Automated validation of the e-Lighten BOM for accuracy

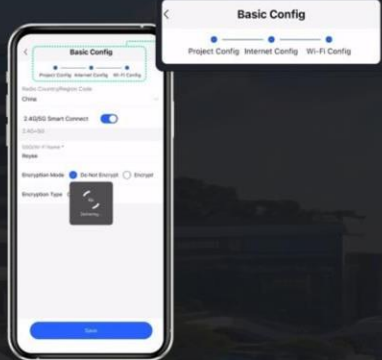


Cloud, Make Your Business Easy

Pre-Sale Deployment Post-Sale

Easy Configuration

Unified configuration of optical networks, Ethernet and telephony systems




Cloud, Make Your Business Easy

Pre-Sale Deployment Post-Sale

Easy Maintenance

One-click AI troubleshooting to remotely resolve 90% of faults



Product Information

| | |
|-------------------------|--------------------|
| Model | RG-NBF6002M |
| Product Category | Layer 3 |

Hardware Specifications

| Model | RG-NBF6002M |
|---|--|
| Product Information | |
| Product category | Modular device |
| Applicable products | No |
| System Specifications | |
| Switching capacity | 196 Gbps (Gbit/s) (twice the switching capacity of the line card) |
| Forwarding rate | 130.944 Mpps (twice the packet forwarding rate of the line card) |
| Port Specifications | |
| Module slots | 2 line card slots 2 system power module slots |
| Number of 10/100BASE-T 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. |
| Number of 10/100/1000/2500BASE-T ports | Determine the quantity based on the type and number of line cards. |
| Number of 100/1000/2.5G/5G/10GBASE-T ports | Determine the quantity based on the type and number of line cards. |
| Number of 100M SC ports | Determine the quantity based on the type and number of line cards. |
| Number of 1GE SC 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 1GE combo ports | Determine the quantity based on the type and number of line cards. |
| Number of 2.5GE SFP ports | Determine the quantity based on the type and number of line cards. |
| Number of 10GE combo ports | Determine the quantity based on the type and number of line cards. |

Hardware Specifications

| Model | RG-NBF6002M |
|-------------------------------------|--|
| Number of 25GE SFP ports | Determine the quantity based on the type and number of line cards. |
| Number of 40GE SFP ports | Determine the quantity based on the type and number of line cards. |
| Number of 100GE SFP ports | Determine the quantity based on the type and number of line cards. |
| Total number of optical ports | Determine the quantity based on the type and number of line cards. |
| Total number of RJ45 ports | Determine the quantity based on the type and number of line cards. |
| MGMT port | 1 x RJ45 MGMT port |
| Buttons | No |
| DIP switch | No |
| Maximum number of PON ports | Determine the quantity based on the type and number of line cards. |
| Maximum number of PON ports per OLT | 32 |
| Reset button | 1 |
| LEDs | 1 x system status LED 1 x MGMT port LED |
| Power Supply and Consumption | |
| Maximum power consumption | 126 W |
| Power supply | Power module |
| Dimensions and Weight | |
| 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.) |
| Casing | Iron |
| Weight | 5.4 kg (11.90 lbs.) (including the empty chassis, without packaging materials) |
| Shipping weight | 6.62 kg (14.59 lbs.) (including packaging materials and empty chassis) |
| Environment and Reliability | |
| Surge protection | Service port: ± 6 kV for common mode Power connector: ± 6 kV for both common mode and differential mode |

Hardware Specifications

| Model | RG-NBF6002M |
|--|---|
| Temperature monitoring | Temperature monitoring |
| Operating temperature | 0°C to 50°C (32°F to 122°F) |
| Mounting options | Rack |
| Hot swapping of line cards | No |
| Hot swapping of power modules | Yes |
| Altitude | 0 m to 5000 m (0 ft. to 16,404.2 ft.) |
| Power supply monitoring | Module monitoring: Yes Fault alarm: Yes Intelligent power-on: No |
| 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 |
| Fan | 3 x fixed fans |
| MTBF | 400,000 hours |
| 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) |
| IP rating | IP20 |
| Certification and Regulatory Compliance | |
| EMC | EN 55032 Class A EN 300386 Class A EN 55035 EN 300386 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-11 IEC 61000-3-2 IEC 61000-3-3 |

Hardware Specifications

| Model | RG-NBF6002M |
|-------------------|-------------|
| RoHS | Yes |
| Safety compliance | IEC 62368-1 |

Software Specifications

| Model | RG-NBF6002M |
|--|-------------|
| Authentication | |
| 802.1X authentication | Yes |
| RADIUS | Yes |
| Basic Configurations | |
| eWeb login with the username and password | Yes |
| Local upgrade | Yes |
| Online upgrade | Yes |
| Restoring factory defaults | Yes |
| Ethernet Switching | |
| VLAN | Yes |
| Maximum number of VLANs | 4094 |
| Link aggregation | Yes |
| Interface flow control | Yes |
| Number of static MAC addresses | 256 |
| Maximum number of MAC address entries | 32000 |
| Static MAC address | Yes |
| Number of filtered MAC addresses | 256 |
| VLAN configuration supported on LAN ports | Yes |
| Voice VLAN | Yes |
| Inbound or outbound rate limiting based on interface traffic | Yes |
| STP (IEEE 802.1d) | Yes |
| RSTP (IEEE 802.1w) | Yes |
| LLDP | Yes |

Software Specifications

| Model | RG-NBF6002M |
|--|-------------|
| Gateway Features | |
| QoS | Yes |
| Priority re-marking | Yes |
| Queue scheduling | Yes |
| Interface | |
| Number of Layer 3 interfaces | 64 |
| Maximum number of SVIs | 64 |
| Maximum number of Layer 3 aggregate interfaces | 16 |
| Cable test | Yes |
| EEE | Yes |
| IP Routing | |
| RIPng | Yes |
| RIP | Yes |
| OSPFv2 | Yes |
| OSPFv3 | Yes |
| IPv4 static route | Yes |
| IPv6 static route | Yes |
| IP Routing | Yes |
| IP Service | |
| DHCP server | Yes |
| DHCP client | Yes |
| DHCP relay | Yes |
| Option 138 | Yes |

Software Specifications

| Model | RG-NBF6002M |
|--|-------------|
| Option 43 | Yes |
| DNS client | Yes |
| Layer 2 multicast (IPv4) | Yes |
| Layer 3 multicast | Yes |
| Maximum number of ARP entries | 4000 |
| ARP binding | Yes |
| Secondary IP address | Yes |
| ND | Yes |
| ICMPv6 | Yes |
| IPv6 | Yes |
| IPv4 ping | Yes |
| IPv6 ping | Yes |
| IPv4 traceroute | Yes |
| IPv6 traceroute | Yes |
| Multicast | |
| IGMP | Yes |
| IGMP snooping | Yes |
| IGMP filtering | Yes |
| IGMP fast leave | Yes |
| PIM-DM | No |
| PIM-SM | Yes |
| Network Management and Monitoring | |
| Port mirroring | Yes |
| NTP client | Yes |

Software Specifications

| Model | RG-NBF6002M |
|--|--------------------|
| eWeb management | Yes |
| Mirroring | Yes |
| Link aggregation mirroring | Yes |
| Zero configuration | Yes |
| SNMP | Yes |
| Ruijie Cloud management | Yes |
| Syslog | Yes |
| Upgrading device software version through Ruijie Reeye App | Yes |
| Restarting devices through Ruijie Reeye App | Yes |
| HTTP login | Yes |
| HTTPS login | Yes |
| Resolution of management port IP address conflicts | No |
| OLT Features | |
| PON/Ethernet optical transceiver auto-sensing | Yes |
| 1G PON optical transceiver | Yes |
| 2.5G PON optical transceiver | No |
| 10G PON optical transceiver | No |
| Maximum number of ONUs per 1G PON port | 32 |
| Maximum number of ONUs per 1G OLT | 320 |
| 1G PON port | 16 |
| Accuracy of ranging between OLT and ONU | 100 m (328.08 ft.) |

Software Specifications

| Model | RG-NBF6002M |
|--|--|
| Layer 2 isolation for ONUs connected to the same OLT port (disabled by default) | Yes |
| Maximum registration distance for registered ONUs (default: 5 km, maximum: 20 km) | Yes |
| Static Bandwidth Allocation (SBA): fixed bandwidth for ONUs | Yes |
| Dynamic Bandwidth Allocation (DBA): maximum bandwidth for ONUs | Yes |
| Displaying OLT optical transceiver information on OLT (temperature/voltage/current/Tx power and Rx power/operating status/port mode) | Yes |
| Displaying ONU optical transceiver information on OLT (temperature/voltage/current/Tx power and Rx power/operating status/port mode) | Yes |
| ONU optical transceiver exception reporting (abnormal temperature, voltage, current, and Tx/Rx power) | Yes |
| OLT automatically connecting to ONUs | Yes |
| Type B single-homing link protection | Yes |
| Type D single-homing link protection | Yes |
| Reliability | |
| Stacking | Yes (via VCS, without dedicated stacking port) |
| VCS | Yes |
| Ruijie Rapid Link Detection Protocol | Yes |
| Security | |
| Port isolation | Yes |

Software Specifications

| Model | RG-NBF6002M |
|--|---|
| ACL | Yes |
| IPv6 ACL | Yes |
| Extended MAC ACL | Yes |
| Extended IP ACL | Yes |
| Maximum number of ACEs | 1900 |
| Applying an inbound ACL to a Layer 2 interface | Yes |
| DHCP snooping | Yes |
| CPU Protection Policy | Yes |
| IP source guard | Yes |
| Unknown unicast storm control | Yes |
| Broadcast storm control | Yes |
| Multicast storm control | Yes |
| Standard ACL | Yes |
| System Performance Capacity | |
| Recommended number of concurrent clients | 12000 |
| Recommended camera limit | 200 W H265: 800 400 W H265: 400 800 W H265: 200 |
| WLAN | |
| AP management | Yes |
| Maximum number of devices on the SON | 400 |

Package Contents

| Model | RG-NBF6002M |
|---------------------------|--|
| Manual | |
| User Manual | 1 |
| Warranty Card | 1 |
| Accessories | |
| Mounting bracket | No |
| Rack-mount bracket | 2 |
| Screw | 8 M4 x 8 mm cross recessed countersunk head screws 1 M4 x 10 mm cross recessed countersunk head screw |
| Device | |
| Device | 1 |

Ruijie | REYEE

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Ruijie Networks Co., Ltd.

Official Website: <https://Reyee.Ruijie.com>