

RG-NBF6002M

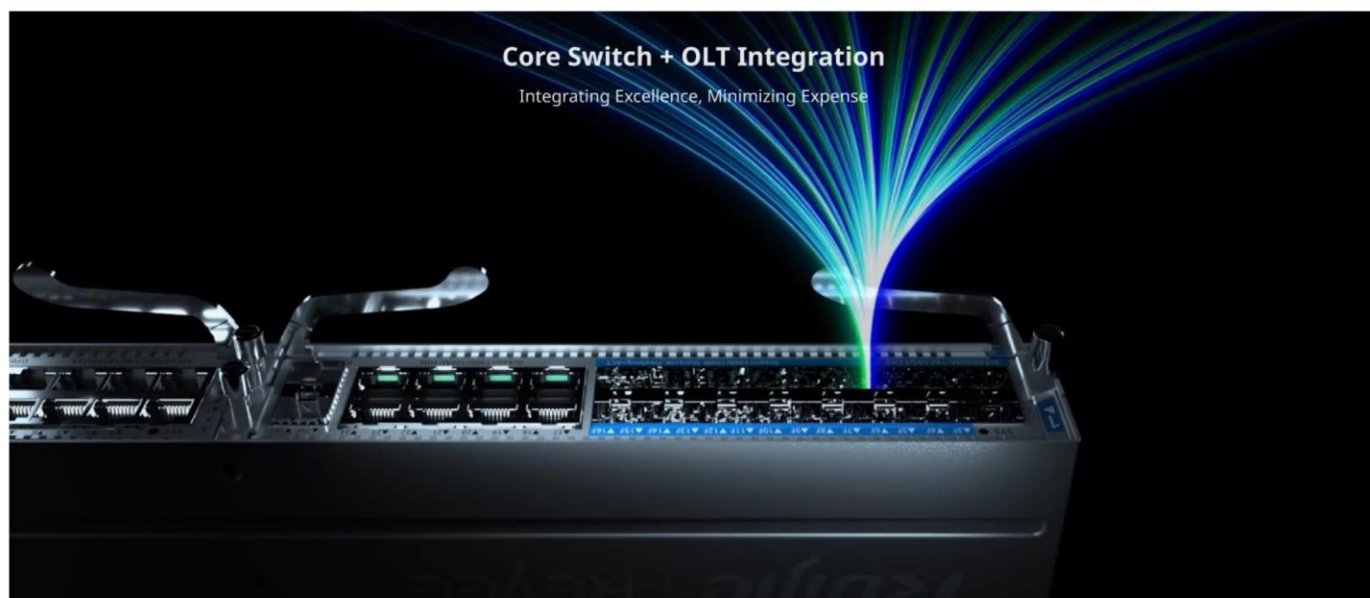
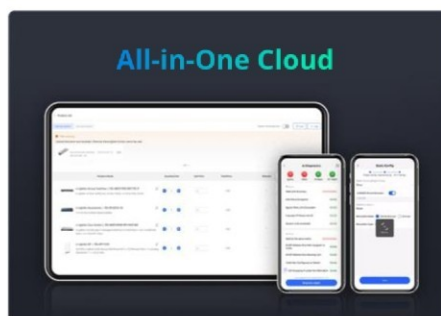
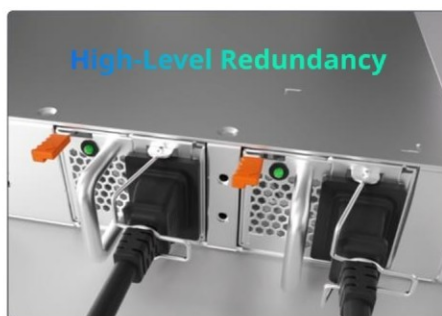
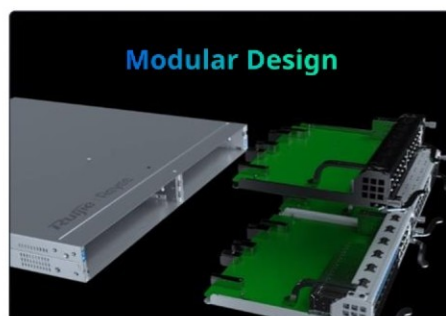
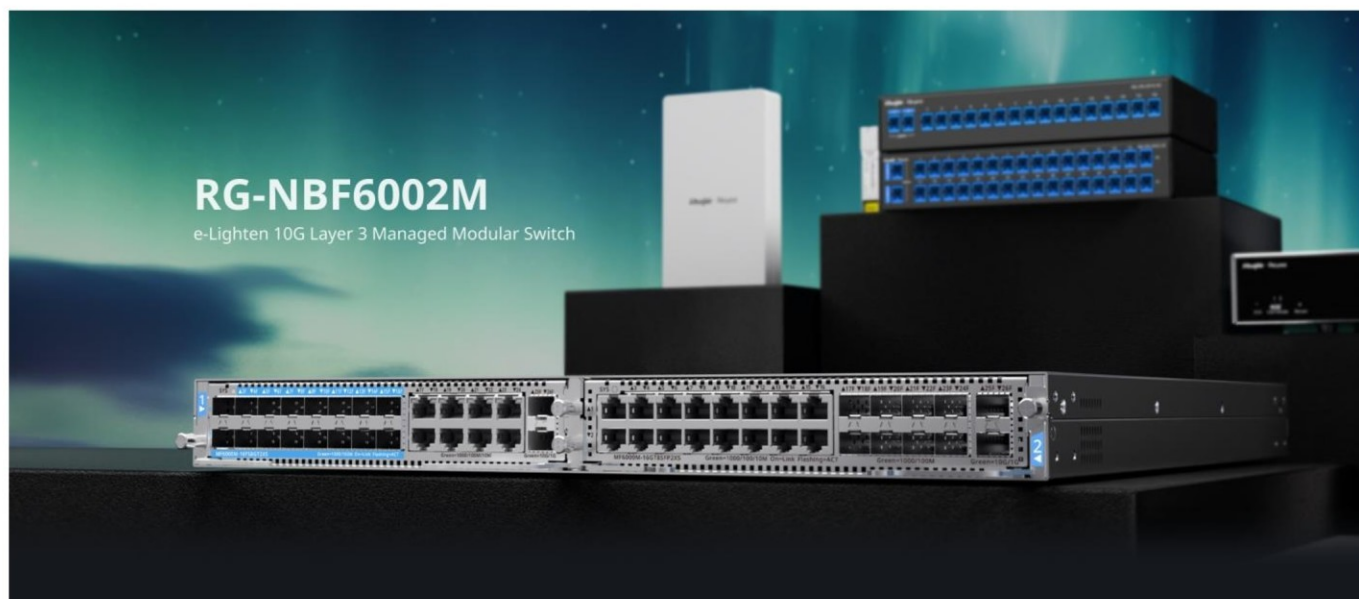
e-Lighten Layer 3 Managed Modular Switch



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

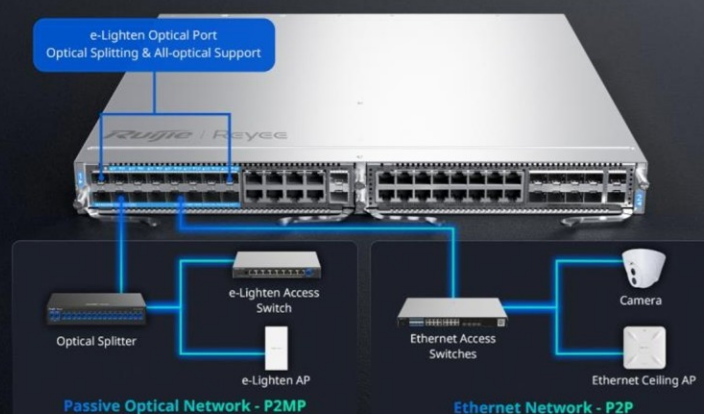
Highlight Features



Highlight Features

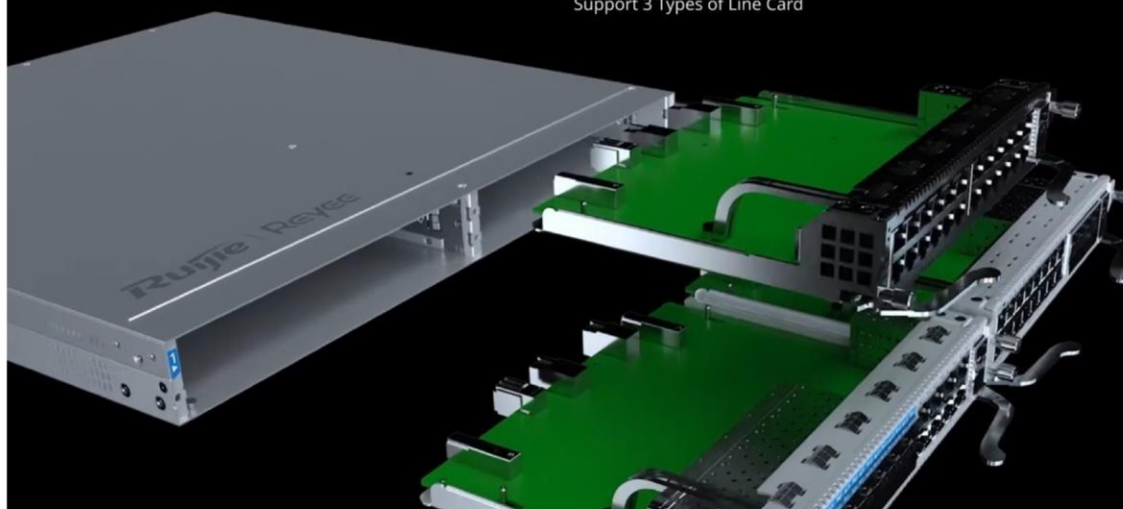
Flexible Networking, Hybrid of P2P & P2MP Networks

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

[illegible]

Cloud, Make Your Business Easy

Pre-Sale Deployment **Post-Sale**

Easy Maintenance

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

AI Diagnostics

- Agree
- Alert
- Abnormal
- IP Search

WLAN Link Assembly: **Internet Issues**

DNS Name Resolution: **Normal**

Egress Rate Limit Exceeded: **Normal**

Ingress IP Session Limit: **Normal**

Session Limit Exceeded: **Normal**

Optical link abnormality: Internet Issues

- DNSIP Address Pool Not Assigned the VLAN: **Normal**
- DNSIP Address Pool Running Out: **Normal**
- VLAN Not Configured on Switch: **Normal**
- ICP Decryption Trusted Port Mismatch: **Normal**

Optimization for the 40G/100G SFPs

Optimize Again

Optical link abnormality **Internet Issues**

/ Product Information

Model	RG-NBF6002M
Product Category	Layer 3

/ Hardware Specifications

Model	RG-NBF6002M
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)
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)
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.

Hardware Specifications

Model	RG-NBF6002M
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.
Number of 25GE SFP ports	Determine the quantity based on the type and number of line cards.

Hardware Specifications

Model	RG-NBF6002M
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
Environment and Reliability	

Hardware Specifications

Model	RG-NBF6002M
Surge protection	Service port: ± 6 kV for common mode Power connector: ± 6 kV for both common mode and differential mode
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)

Hardware Specifications

Model	RG-NBF6002M
Storage humidity	5% RH to 95% RH (non-condensing)
IP rating	IP20
Product Information	
Product category	Modular device
Applicable products	No
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
RoHS	Yes
Safety compliance	IEC 62368-1

Software Specifications

Model	RG-NBF6002M
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
Basic Configurations	
eWeb login with the username and password	Yes
Local upgrade	Yes
Online upgrade	Yes
Restoring factory defaults	Yes
Authentication	
802.1X authentication	Yes
RADIUS	Yes
IP Routing	
RIPng	Yes
RIP	Yes
OSPFv2	Yes
OSPFv3	Yes

Software Specifications

Model	RG-NBF6002M
IPv4 static route	Yes
IPv6 static route	Yes
IP Routing	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
Multicast	
IGMP	Yes
IGMP snooping	Yes
IGMP filtering	Yes
IGMP fast leave	Yes
PIM-DM	No
PIM-SM	Yes
IP Service	
DHCP server	Yes
DHCP client	Yes
DHCP relay	Yes
Option 138	Yes
Option 43	Yes
DNS client	Yes
Layer 2 multicast (IPv4)	Yes
Layer 3 multicast	Yes
Maximum number of ARP entries	4000

Software Specifications

Model	RG-NBF6002M
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
Network Management and Monitoring	
Port mirroring	Yes
NTP client	Yes
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 Reyee App	Yes

Software Specifications

Model	RG-NBF6002M
Restarting devices through Ruijie Reyee 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: 10 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

Software Specifications

Model	RG-NBF6002M
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
Reliability	
Stacking	Yes (via VCS, without dedicated stacking port)
VCS	Yes
Ruijie Rapid Link Detection Protocol	Yes
Security	
Port isolation	Yes
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

Software Specifications

Model	RG-NBF6002M
IP source guard	Yes
Unknown unicast storm control	Yes
Broadcast storm control	Yes
Multicast storm control	Yes
Standard ACL	Yes
WLAN	
AP management	Yes
Maximum number of devices on the SON	400
System Performance Capacity	
Recommended number of concurrent clients	12000
Recommended camera limit	200 W H265: 800
	400 W H265: 400
	800 W H265: 200

Package Contents

Model	RG-NBF6002M
Manual	
User Manual	1
Warranty Card	1
Device	
Device	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

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 Redefine your easy network



Ruijie Networks Co., Ltd.

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