

# RG-NBF5200M-8FS16GT4XS

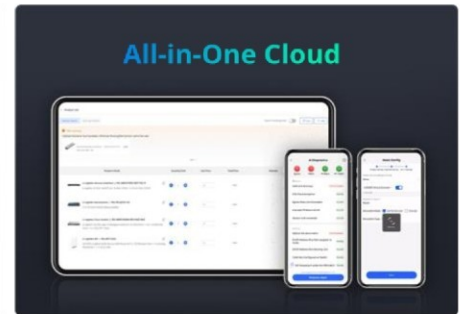
## e-Lighten Layer 3 Managed Switch



## Highlights

- Passive Optical Networking Support
- Core Switch + OLT 2-in-1 for Flexible Networking
- 10G Uplink
- 6 kV Surge Protection, Reducing the Risk of Port Damage
- Free Layer 3 Cloud Management

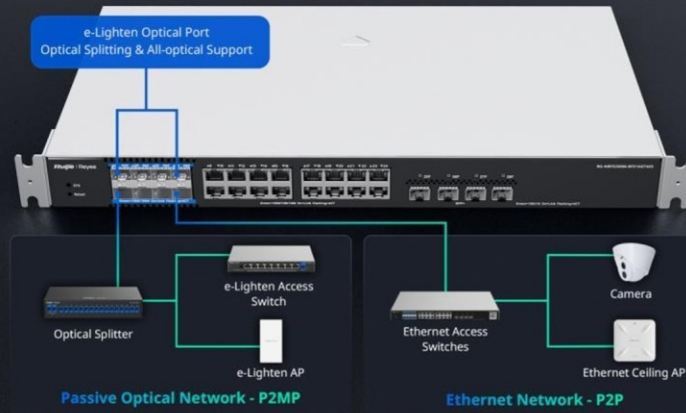
# Highlight Features



# Highlight Features

## Flexible Networking, Hybrid of P2P & P2MP Networks

Customize the Network that Works Best for You



## 10G Uplink: Powering the Next Generation of Connectivity



## Cloud, Make Your Business Easy

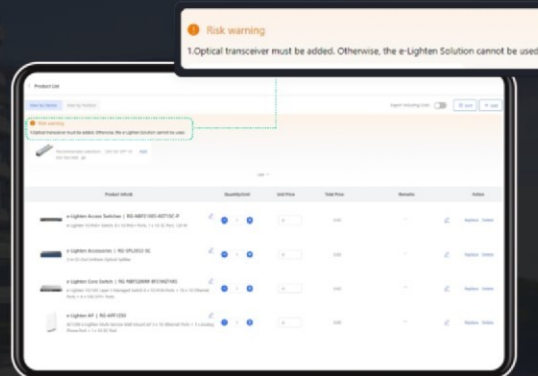
Pre-Sale

Deployment

Post-Sale

### Easy BOM

Automated validation of the e-Lighten BOM for accuracy



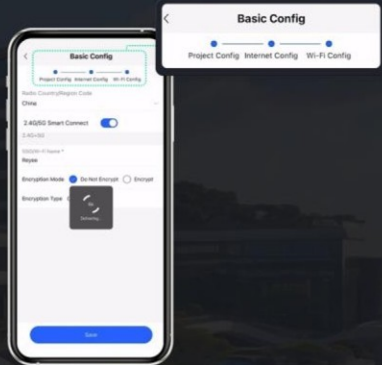
# Highlight Features

## Cloud, Make Your Business Easy

Pre-Sale      Deployment      Post-Sale

### Easy Configuration

Unified configuration of optical networks, Ethernet and telephony systems




The image shows a smartphone displaying the 'Basic Config' application. The app has a top navigation bar with 'Basic Config' and three sub-sections: 'Project Config', 'Internet Config', and 'Wi-Fi Config'. Below the navigation bar, there are several configuration options, including a toggle for 'LAGGED Smart Connect' and a 'Save' button at the bottom. A callout box is positioned to the right of the phone, showing a simplified version of the 'Basic Config' interface with the same three sub-sections.

## Cloud, Make Your Business Easy

Pre-Sale      Deployment      Post-Sale

### Easy Maintenance

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



The image shows a smartphone displaying the 'AI Diagnostics' application. The app has a top navigation bar with 'AI Diagnostics' and three sub-sections: 'Error', 'Warning', and 'All Issues'. Below the navigation bar, there is a list of diagnostic items with status indicators (red, yellow, green). A callout box is positioned to the right of the phone, showing a simplified version of the 'AI Diagnostics' interface with a 'Optical link abnormality' warning and an 'Internet Troubleshoot' button.

## Product Information

<b>Model</b>	<b>RG-NBF5200M-8FS16GT4XS</b>
<b>Product Category</b>	Layer 3

## Hardware Specifications

<b>Model</b>	<b>RG-NBF5200M-8FS16GT4XS</b>
<b>Product Information</b>	
<b>Product category</b>	Fixed device
<b>Applicable products</b>	No
<b>System Specifications</b>	
<b>Switching capacity</b>	128 Gbps (Gbit/s)
<b>Forwarding rate</b>	95.232 Mpps
<b>Port Specifications</b>	
<b>Module slots</b>	No
<b>Number of 10/100BASE-T ports</b>	No
<b>Number of 10/100/1000BASE-T ports</b>	16
<b>Number of 10/100/1000/2500BASE-T ports</b>	No
<b>Number of 100/1000/2.5G/5G/10GBASE-T ports</b>	No
<b>Number of 100M SC ports</b>	No
<b>Number of 1GE SC ports</b>	No
<b>Number of 10GE SFP+ ports</b>	4
<b>Number of 1GE combo ports</b>	No
<b>Number of 2.5GE SFP ports</b>	No
<b>Number of 10GE combo ports</b>	No
<b>Number of 25GE SFP ports</b>	No

## Hardware Specifications

Model	RG-NBF5200M-8FS16GT4XS
Number of 40GE SFP ports	No
Number of 100GE SFP ports	No
Total number of optical ports	12
Total number of RJ45 ports	16
MGMT port	No
Buttons	No
DIP switch	No
Maximum number of PON ports	8
Maximum number of PON ports per OLT	8
Reset button	1
LEDs	1 x system status LED 8 x SFP/PON port LEDs 16 x Ethernet port LEDs 4 x SFP+ port LEDs
<b>Power Supply and Consumption</b>	
Maximum power consumption	60 W
Power supply	Fixed power supply
<b>Dimensions and Weight</b>	
Product dimensions (W x D x H)	440 mm x 260 mm x 43.6 mm (17.32 in. x 10.24 in. x 1.72 in.)
Casing	Iron
Weight	3.34 kg (7.36 lbs.)
Shipping weight	4.63 kg (10.21 lbs.) (with packaging materials)
<b>Environment and Reliability</b>	
Surge protection	Service port: $\pm 6$ kV for common mode Power connector: $\pm 6$ kV for both common mode and differential mode
Temperature monitoring	No

# Hardware Specifications

Model	RG-NBF5200M-8FS16GT4XS
Operating temperature	0°C to 50°C (32°F to 122°F)
Mounting options	Rack
Hot swapping of power modules	No
Altitude	0 m to 5000 m (0 ft. to 16,404.2 ft.)
Power supply monitoring	Module monitoring: No Fault alarm: No Intelligent power-on: No
Cooling	Air cooling, front-to-rear airflow + left-to-rear airflow
Fan	2 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
<b>Certification and Regulatory Compliance</b>	
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-NBF5200M-8FS16GT4XS
<b>Authentication</b>	
802.1X authentication	Yes
RADIUS	Yes
<b>Basic Configurations</b>	
eWeb login with the username and password	Yes
Local upgrade	Yes
Online upgrade	Yes
Restoring factory defaults	Yes
<b>Ethernet Switching</b>	
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	16000
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-NBF5200M-8FS16GT4XS
<b>Gateway Features</b>	
QoS	Yes
Priority re-marking	Yes
Queue scheduling	Yes
<b>Interface</b>	
Number of Layer 3 interfaces	32
Maximum number of SVIs	32
Maximum number of Layer 3 aggregate interfaces	15
Cable test	Yes
EEE	Yes
<b>IP Routing</b>	
RIPng	Yes
RIP	Yes
OSPFv2	Yes
OSPFv3	Yes
IPv4 static route	Yes
IPv6 static route	Yes
IP Routing	Yes
<b>IP Service</b>	
DHCP server	Yes
DHCP client	Yes
DHCP relay	Yes
Option 138	Yes

# Software Specifications

Model	RG-NBF5200M-8FS16GT4XS
Option 43	Yes
DNS client	Yes
Layer 2 multicast (IPv4)	Yes
Layer 3 multicast	Yes
Maximum number of ARP entries	1000
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
<b>Multicast</b>	
IGMP	Yes
IGMP snooping	Yes
IGMP filtering	Yes
IGMP fast leave	Yes
PIM-DM	No
PIM-SM	Yes
<b>Network Management and Monitoring</b>	
Port mirroring	Yes
NTP client	Yes

## Software Specifications

Model	RG-NBF5200M-8FS16GT4XS
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
Restarting devices through Ruijie Reyee App	Yes
HTTP login	Yes
HTTPS login	Yes
Resolution of management port IP address conflicts	No
<b>OLT Features</b>	
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	256
1G PON port	8
Accuracy of ranging between OLT and ONU	100 m (328.08 ft.)

# Software Specifications

Model	RG-NBF5200M-8FS16GT4XS
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
<b>Reliability</b>	
Stacking	No
VCS	Yes
Ruijie Rapid Link Detection Protocol	Yes
<b>Security</b>	

# Software Specifications

Model	RG-NBF5200M-8FS16GT4XS
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
IP source guard	Yes
Unknown unicast storm control	Yes
Broadcast storm control	Yes
Multicast storm control	Yes
Standard ACL	Yes
<b>System Performance Capacity</b>	
Recommended number of concurrent clients	12000
Recommended camera limit	200 W H265: 400 400 W H265: 200 800 W H265: 100
<b>WLAN</b>	
AP management	Yes
Maximum number of devices on the SON	300

## Package Contents

<b>Model</b>	<b>RG-NBF5200M-8FS16GT4XS</b>
<b>Manual</b>	
<b>User Manual</b>	1
<b>Warranty Card</b>	1
<b>Accessories</b>	
<b>Mounting bracket</b>	No
<b>Rack-mount bracket</b>	2
<b>Screw</b>	8 M4 x 8 mm cross recessed countersunk head screws
<b>Device</b>	
<b>Device</b>	1

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