

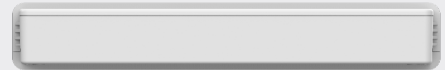
RG-MUX Series Transparent Distribution Device



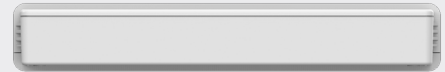
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Ruijie

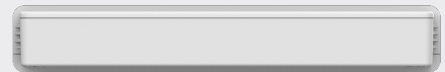
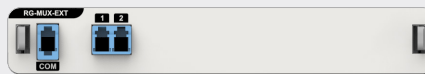
Product Pictures



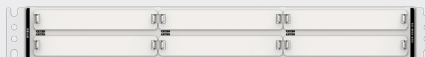
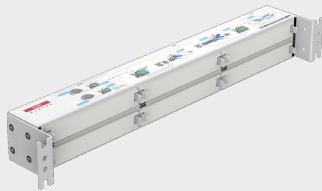
RG-MUX-8LC/LC



RG-MUX-8LC/LC-H



RG-MUX-EXT



RG-MUX-BOX

Product Overview

The RG-MUX series transparent distribution devices are passive devices launched by Ruijie Networks for simplified optical switching. They are applicable to all-optical network scenarios.

Boasting CWDM technology and standard 16-wavelength ranging from 1271 nm to 1571 nm with 20 nm increments, this series can extend 10G, 2.5G and 1G optical cables to each room when used with Ruijie Simplified Optical Ethernet (SOE) solution. The core switches integrate functions of a combiner, reduce the number of occupied ports on the core side, and support virtual switching unit (VSU) functions. They meet customer requirements for network construction by replacing combiners, achieving passive distribution nodes, and reducing the configuration and O&M workloads of active distribution nodes. When a device fault occurs, the impact of its replacement on the network is minimized for quick network restoration.

Product Features

Transparent Distribution Device

RG-MUX-8LC/LC

- Building-side transparent distribution device, with one multiplexing port and eight 1GE/2.5GE/10GE demultiplexing ports, adopting 16 specific CWDM wavelengths, providing the maximum access capacity of eight ports.
- This device can be mounted on a wall or installed in the RG-MUX-BOX in a rack.

RG-MUX-8LC/LC-H

- Building-side 8-port transparent distribution device (high-end version with low insertion loss), with one multiplexing port and eight 1GE/2.5GE/10GE demultiplexing ports, adopting 16 specific CWDM wavelengths, providing the maximum access capacity of eight ports.
- This device can be used with the RG-MUX-EXT to implement dual uplinks.
- This device can be mounted on a wall or installed in the RG-MUX-BOX in a rack.

RG-MUX-EXT

- Building-side transparent distribution device's expansion module, or optical dual-uplink splitter (delivered with short fiber jumpers), which connects to the transparent distribution device and provides 1-to-2 optical signal splitting to realize dual-uplink networking. This splitter can be used in VSU scenarios and provides two uplink demultiplexing ports.
- This dual-uplink splitter can be mounted on a wall or installed in the RG-MUX-BOX in a rack.

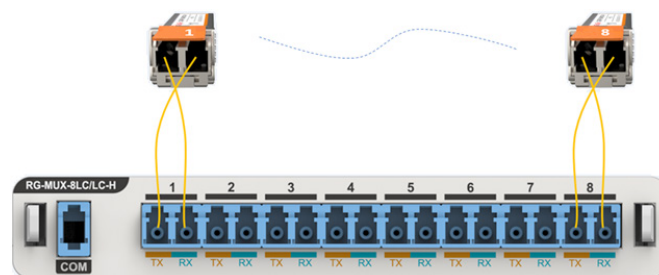
RG-MUX-BOX

- Building-side transparent distribution device subrack, providing six slots for transparent distribution devices or dual-uplink splitters for rack mounting. The RG-MUX-BOX is delivered with blank filler plates. Therefore, remove the blank filler plate before inserting a transparent distribution device or dual-uplink splitter.
- This device can be mounted on a wall or installed in a 19-inch rack.

CWDM Transceiver

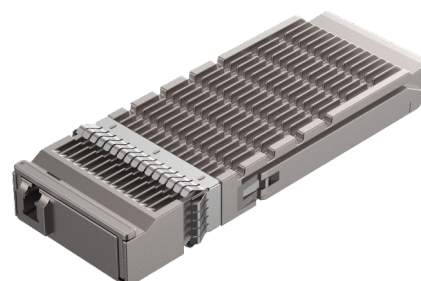
The transparent distribution devices must be used with Ruijie CWDM transceivers.

- The transparent distribution device is installed in the building-side ELV room.
- Core-side CWDM transceivers are installed on the core switch in the core equipment room, and are connected to the multiplexing port of the transparent distribution device through a fiber trunk cable.
- Access-side CWDM transceivers are installed on the access switch in the building-side ELV room, and are connected to the demultiplexing ports of the transparent distribution device using short fiber jumpers.
- The numbers of access-side CWDM transceivers must match those of demultiplexing ports on the transparent distribution device. For example, access-side CWDM transceiver 1 must be connected to demultiplexing port 1 on the transparent distribution device.
- The operating wavelength range of a CWDM transceiver is from 1271 nm to 1571 nm, with a channel spacing of 20 nm.



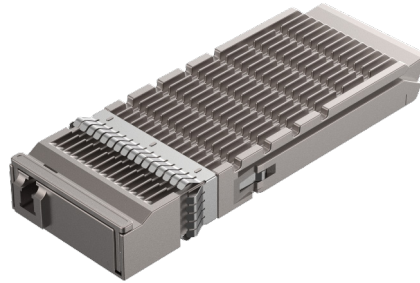
SFG-LR-SM

The SFG 1G CWDM transceiver is on the core side with simplex and single-mode optical cable. The optical cable is 10 km (6.21 mi.) long and supports eight wavelengths for eight access devices, using LC connector.



SFX-LR-SM

The SFX 10G CWDM transceiver is on the core side with simplex and single-mode optical cable. The optical cable is 10 km (6.21 mi.) long and supports eight wavelengths for eight access devices, using LC connector.



GE-SFP-LR(A1-8)-H

The GE-SFP-LR(A1-8)-H is a group of eight high-power 1G CWDM transceivers on the access side with eight wavelengths and single-mode optical cables. The optical cables are 10 km (6.21 mi.) long, using LC connector.

The eight CWDM transceivers are listed below:

Series	SFP Model	Label	Rate
GE-SFP-LR(A1-8)-H	GE-SFP-LR-SM1431-A1-H	Access 1	1 Gbps
	GE-SFP-LR-SM1451-A2-H	Access 2	1 Gbps
	GE-SFP-LR-SM1471-A3-H	Access 3	1 Gbps
	GE-SFP-LR-SM1491-A4-H	Access 4	1 Gbps
	GE-SFP-LR-SM1511-A5-H	Access 5	1 Gbps
	GE-SFP-LR-SM1531-A6-H	Access 6	1 Gbps
	GE-SFP-LR-SM1551-A7-H	Access 7	1 Gbps
	GE-SFP-LR-SM1571-A8-H	Access 8	1 Gbps

XG-SFP-LR(A1-8)-H

The XG-SFP-LR(A1-8)-H is a group of eight high-power 10G CWDM transceivers on the access side, with eight wavelengths and single-mode optical cables. The optical cables are 10 km (6.21 miles) long, using the LC connector.

Eight CWDM transceivers are listed below:

Series	SFP+ Model	Label	Rate
XG-SFP-LR(A1-8)-H	XG-SFP-LR-SM1431-A1-H	Access 1	10 Gbps
	XG-SFP-LR-SM1451-A2-H	Access 2	10 Gbps
	XG-SFP-LR-SM1471-A3-H	Access 3	10 Gbps

Series	SFP Model	Label	Rate
XG-SFP-LR(A1-8)-H	XG-SFP-LR-SM1491-A4-H	Access 4	10 Gbps
	XG-SFP-LR-SM1511-A5-H	Access 5	10 Gbps
	XG-SFP-LR-SM1531-A6-H	Access 6	10 Gbps
	XG-SFP-LR-SM1551-A7-H	Access 7	10 Gbps
	XG-SFP-LR-SM1571-A8-H	Access 8	10 Gbps

Product Specifications

Product Specifications	RG-MUX-8LC/LC	RG-MUX-8LC/LC-H	RG-MUX-EXT
Fixed service port	8 x demultiplexing ports, supporting 1GE/2.5GE/10GE 1 x multiplexing port	8 x demultiplexing ports, supporting 1GE/2.5GE/10GE 1 x multiplexing port, supporting connection to a dual-uplink splitter	1 x multiplexing port 2 x uplink ports for optical splitting
Wavelength range	1271 nm to 1571 nm (CWDM)	1271 nm to 1571 nm (CWDM)	1271 nm to 1571 nm (CWDM)
Channel spacing	20 nm	20 nm	20 nm
Channel bandwidth	±6 nm	±6 nm	±6 nm
Insertion loss	< 3.7 dB	< 2.6 dB	< 4.2 dB
Return loss	> 45 dB	> 45 dB	> 45 dB
Polarization loss	< 0.3 dB	< 0.3 dB	< 0.3 dB
Adjacent channel isolation	> 25 dB	> 25 dB	/
Non-adjacent channel isolation	> 35 dB	> 35 dB	/
Connector type	LC/UPC	LC/UPC	LC/UPC
Unit dimensions (W x D x H)	149.0 mm x 140.5 mm x 22.0 mm (5.87 in. x 5.53 in. x 0.87 in.)		
Shipping dimensions (W x D x H)	405 mm x 378 mm x 425 mm (15.94 in. x 14.88 in. x 16.73 in.)		

Product Specifications	RG-MUX-8LC/LC	RG-MUX-8LC/LC-H	RG-MUX-EXT
Unit weight	0.25 kg (0.55 lbs)	0.25 kg (0.55 lbs)	0.15 kg (0.33 lbs)
Shipping weight	4.53 kg (9.99 lbs)		
Mounting	Mounting on a wall or in a rack (cabinet)		
Temperature	Operating temperature: 0°C to 55°C (32°F to 131°F) Storage temperature: -40°C to +85°C (-40°F to +185°F)		
Humidity	Operating humidity: 5% to 95% RH (non-condensing) Storage humidity: 5% to 95% RH (non-condensing)		
Altitude	Same as the specification of the SOE switch		
Communication standard	GR-1221-Core and GR-1209-Core		

Product Specifications	RG-MUX-BOX
Module slot	6 x transparent distribution device/dual-uplink splitter slots
Unit dimensions (W x D x H)	442 mm x 50 mm x 58 mm (17.4 in. x 1.97 in. x 2.28 in.)
Shipping dimensions (W x D x H)	557 mm x 358 mm x 271 mm (21.93 in. x 14.09 in. x 10.67 in.)
Unit weight	0.9 kg (1.98 lbs)
Shipping weight	11.5 kg (25.35 lbs)
Mounting	Mounting on a wall or in a rack (cabinet)
Temperature	Operating temperature: -40°C to +85°C (-40°F to +185°F) Storage temperature: -40°C to +85°C (-40°F to +185°F)
Humidity	Operating humidity: 5% to 95% RH (non-condensing) Storage humidity: 5% to 95% RH (non-condensing)
Altitude	Same as the specification of the SOE switch

Ordering Information

Chassis

Model	Description
RG-MUX-8LC/LC	Building-side 8-port transparent distribution device, 8 x 1GE/2.5GE/10GE demultiplexing ports, 1 x multiplexing port
RG-MUX-8LC/LC-H	Building-side 8-port transparent distribution device (high-end version with low insertion loss), 8 x 1GE/2.5GE/10GE demultiplexing ports, 1 x multiplexing port, supporting connection to a dual-uplink splitter
RG-MUX-EXT	Building-side transparent distribution device's expansion module, or optical dual-uplink splitter (delivered with short fiber jumpers), which connects to the transparent distribution device and provides 1-to-2 optical signal splitting to realize dual-uplink networking; 1 x multiplexing port, 2 x uplink ports for optical splitting
RG-MUX-BOX	Building-side transparent distribution device subrack, 6 x transparent distribution device/dual-uplink splitter slots

CWDM Transceiver

Note: The CWDM transceiver module is not installed on the transparent distribution device.

- CWDM transceivers are installed on core switches in the core equipment room, and are connected to the multiplexing port of the transparent distribution device through fiber trunk cables.
- The access-side CWDM transceiver is installed on the access switch in the building's ELV room, and is interconnected with the demultiplexing port of the transparent distribution device through a short fiber.

Model	Description
SFG-LR-SM	Core switch side, 1G BASE-LR,SFG Transceiver, 8 different wavelengths (10 km, LC)
SFX-LR-SM	Core switch side, 10G BASE-LR, SFP+ Transceiver, 8 different wavelengths (10 km, LC)
GE-SFP-LR(A1-8)-H	Access switch side, 1G BASE-LR, SFG Transceiver, 8 different wavelengths (10 km, LC), used in dual uplink scenarios
XG-SFP-LR(A1-8)-H	Access switch side, 10G BASE-LR, SFP+ Transceiver, 8 different wavelengths (10 km, LC), used in dual uplink scenarios

Package Contents

Item	RG-MUX-8LC/LC RG-MUX-8LC/LC-H RG-MUX-EXT	RG-MUX-BOX
Chassis	1	1
Mounting bracket	2	2
Mounting screw	6	/
M4x8 cross recessed countersunk head screw, GB819-85	/	10
<i>Network Product Warranty Manual and Hazardous Substance Statement</i>	1	1
<i>Cabling Record Sheet</i>	1	/

Warranty

For more information about warranty terms and period, contact your local sales agency:

- Warranty terms: <https://www.ruijienetworks.com/support/servicepolicy>
- Warranty period: <https://www.ruijienetworks.com/support/servicepolicy/Service-Support-Summary/>

Note: The warranty terms are subject to the terms of different countries and distributors.

More Information

For more information about Ruijie Networks, visit the official Ruijie website or contact your local sales agency:

- Ruijie Networks official website: <https://www.ruijienetworks.com/>
- Online support: <https://www.ruijienetworks.com/support>
- Hotline support: <https://www.ruijienetworks.com/support/hotline>
- Email support: service_rj@ruijienetworks.com



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