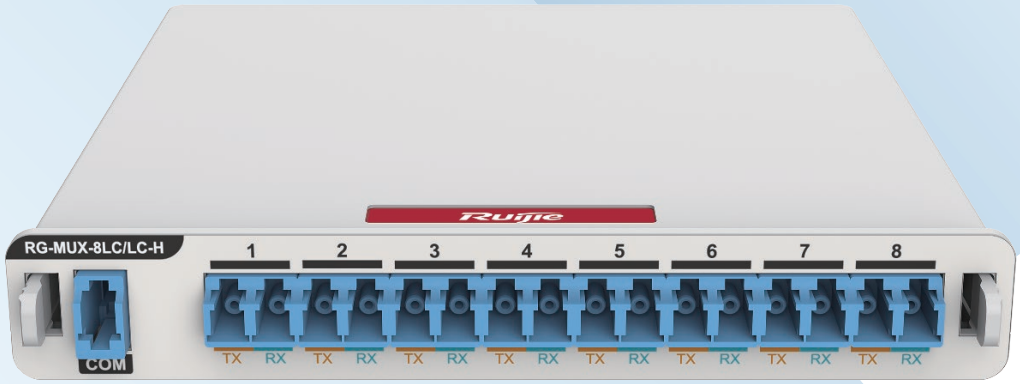

RG-MUX Series
Transparent Distribution Device

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Ruijie

Introduction to the Transparent Distribution Device

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 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.

Description

Model	Name	Dimensions (W x D x H)
RG-MUX-8LC/LC	8-port transparent distribution device on the building side. A single port supports 1000M and 10G rates.	149 mm x 140.5 mm x 22 mm (5.87 in. x 5.53 in. x 0.87 in.)
RG-MUX-8LC/LC-H	8-port transparent distribution device on the building side. A single port supports 1000M and 10G rates. This low-insert-loss transparent distribution device can be used with an optical splitter to support dual uplinks.	149 mm x 140.5 mm x 22 mm (5.87 in. x 5.53 in. x 0.87 in.)
RG-MUX-EXT	Expansion module of the transparent distribution device on the building side, which is also an optical splitter. It supports 2:N dual uplinks and is equipped with patch cables.	149 mm x 140.5 mm x 22 mm (5.87 in. x 5.53 in. x 0.87 in.)
RG-MUX-BOX	Chassis for the transparent distribution device on the building side with six slots. It is fit for the 8-port transparent distribution device or optical splitter.	442 mm x 50 mm x 58 mm (17.4 in. x 1.97 in. x 2.28 in.)

Caution

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

Product Specifications

RG-MUX-8LC/LC

Specifications

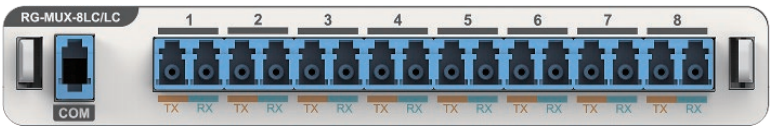
Model	RG-MUX-8LC/LC
Description	8-port transparent distribution device on the building side. A single port supports 1000M and 10G rates.
Center Wavelength	1271 nm to 1571 nm (CWDM)
Channel Spacing	20 nm
Channel Bandwidth	±6 nm
Insertion Loss	< 3.7 dB
Return Loss	> 45 dB
Polarization Dependent Loss	< 0.3 dB
Adjacent Channel Isolation	> 25 dB
Non-adjacent Channel Isolation	> 35 dB
Connector	LC/UPC
Operating Temperature	0°C to 55°C (32°F to 131°F) at the altitude of 0 m to 1800 m (0 ft. to 5905.51 ft.)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Operating Humidity	5% RH to 95% RH
Storage Humidity	5% RH to 95% RH
Standards	GR-1221-Core and GR-1209-Core
Net Weight	< 0.25 kg (0.55 lbs)

Appearance

Integrating one group of CWDM 16-wavelength passive demultiplexer, RG-MUX-8LC/LC supports eight access ports and accommodates one input port.

RG-MUX-8LC/LC

Front Panel



Front Panel of RG-MUX-8LC/LC

Rear Panel

Rear Panel of RG-MUX-8LC/LC

RG-MUX-8LC/LC-H

Specifications

Model	RG-MUX-8LC/LC-H
Description	8-port transparent distribution switch on the building side. A single port supports 1000M and 10G rates.
Center Wavelength	1271 nm to 1571 nm (CWDM)
Channel Spacing	20 nm

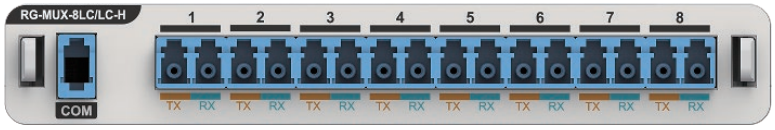
Model	RG-MUX-8LC/LC-H
Channel Bandwidth	±6 nm
Insertion Loss	< 2.6 dB
Return Loss	> 45 dB
Polarization Dependent Loss	< 0.3 dB
Adjacent Channel Isolation	> 25 dB
Non-adjacent Channel Isolation	> 35 dB
Connector	LC/UPC
Operating Temperature	–0°C to 55°C (32°F to 131°F, altitude: 0 ft. to 5905.51 ft.)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Operating Humidity	5% RH to 95% RH
Storage Humidity	5% RH to 95% RH
Standard	GR-1221-Core and GR-1209-Core
Net Weight	< 0.25 kg (0.551 lbs)

Appearance

Integrating one group of CWDM 16-wavelength passive demultiplexer, RG-MUX-8LC/LC-H supports eight access ports, and has one input port with low insertion loss.

RG-MUX-8LC/LC-H

Front Panel



Front Panel of RG-MUX-8LC/LC-H

Rear Panel

Rear Panel of RG-MUX-8LC/LC-H

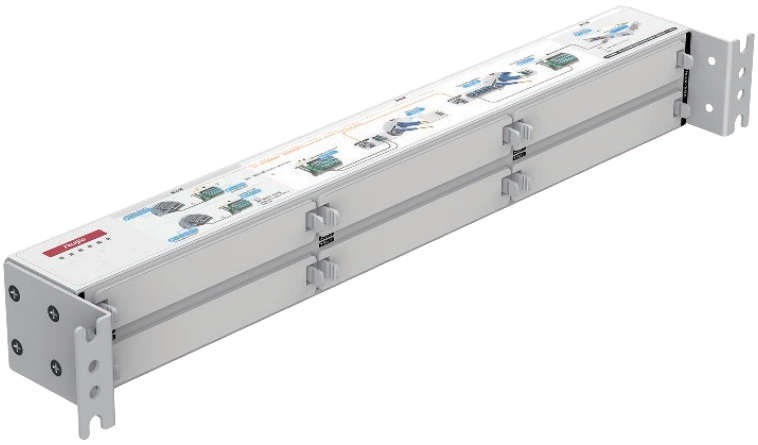
RG-MUX-BOX

Specifications

Model	RG-MUX-BOX
Description	Chassis for transparent distribution device on the building side with six slots, which is fit for 8-port transparent distribution device or splitter.
Operating Temperature	–40°C to +85°C (–40°F to +185°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Operating Humidity	5% RH to 95% RH
Storage Humidity	5% RH to 95% RH
Net Weight	0.9 kg (1.98 lbs)

Appearance

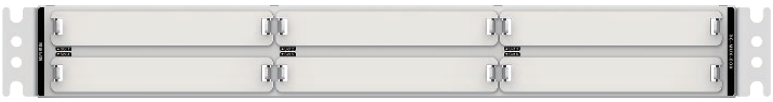
The chassis is suitable for the transparent distribution device and optical splitter. It requires a 19 RU rack for installation. The chassis is accompanied by a filler panel. Remove the filler panel from the chassis, and then install the transparent distribution device or optical splitter.



RG-MUX-BOX

Installation location: standard 19-inch rack on the building side. Wall-mounting is also supported.

Front Panel



Front Panel of RG-MUX-BOX

Rear Panel

Rear Panel of RG-MUX-BOX

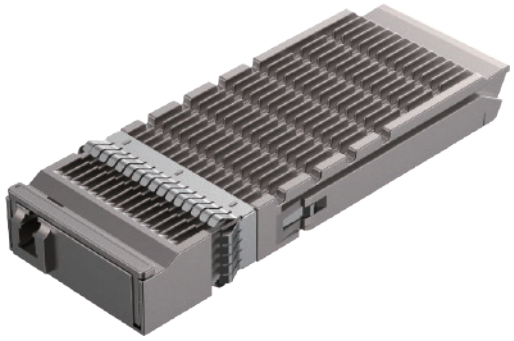
CWDM Transceivers

Note:
- CWDM transceivers on the core side are used with the corresponding switch, while access CWDM transceivers are used with transparent distribution device and access switch.
- The number of access CWDM transceiver module must match the port number of the transparent distribution device. For instance, the CWDM transceiver of Access 1 should be connected to Output Port 1 of the corresponding transparent distribution device.

Note:
- The CWDM transceivers (SFG-LR-SM and SFX-LR-SM) on the core side, should be plugged into the core switch in the core equipment room, and be connected to the transparent distribution device installed in the weak power room of the building through the input port.

SFG-LR-SM

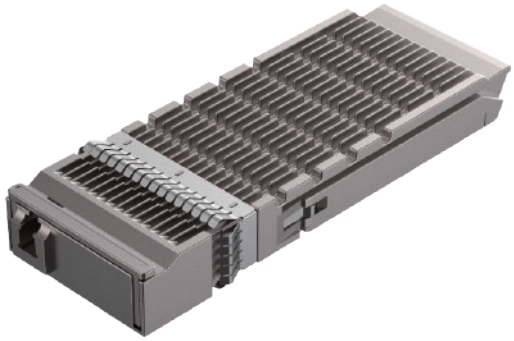
The SFG 1G CWDM transceiver is on the core side with simplex and single-mode optical cable. The optical cable is 10 km (6.21 mi.) long and supports eight wavelengths for eight access devices, using LC connector.



SFG-LR-SM

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.



SFX-LR-SM

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.les) 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

Series	SFP Model	Label	Rate
GE-SFP-LR(A1-8)-H	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

GE-SFP-LR(A1-4)-H

The GE-SFP-LR(A1-4)-H is a group of four high-power 1G CWDM transceivers on the access side with four wavelengths and single-mode optical cables. The optical cables are 10 km (6.21 miles) long, using the LC connector.

Four CWDM transceivers are listed below:

Series	SFP Model	Label	Rate
GE-SFP-LR(A1-4)-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

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

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

XG-SFP-LR(A1-4)-H

The XG-SFP-LR(A1-4)-H is a group of four high-power 10G CWDM transceivers on the access side, with four wavelengths and single-mode optical cables. The optical cables are 10 km (6.21 mi.) long, using LC connector.

The four CWDM transceivers are listed below:

Series	SFP+ Model	Label	Rate
XG-SFP-LR(A1-4) -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
	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 switch 6	10 Gbps
	XG-SFP-LR-SM1551-A7-H	Access 7	10 Gbps
	XG-SFP-LR-SM1571-A8-H	Access 8	10 Gbps

XG-SFP-LR(A1-8)

The XG-SFP-LR(A1-8) is a group of eight low-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 LC connector.

Eight CWDM transceivers are listed below:

Series	SFP+ Model	Number	Rate
XG-SFP-LR(A1-8)	XG-SFP-LR-SM1431-A1	Access 1	10 Gbps
	XG-SFP-LR-SM1451-A2	Access 2	10 Gbps
	XG-SFP-LR-SM1471-A3	Access 3	10 Gbps
	XG-SFP-LR-SM1491-A4	Access 4	10 Gbps
	XG-SFP-LR-SM1511-A5	Access 5	10 Gbps
	XG-SFP-LR-SM1531-A6	Access 6	10 Gbps
	XG-SFP-LR-SM1551-A7	Access 7	10 Gbps
	XG-SFP-LR-SM1571-A8	Access 8	10 Gbps

XG-SFP-LR(A1-4)

The XG-SFP-LR(A1-4) is a group of low-power 10G CWDM transceivers on the access side with four wavelengths and single-mode optical cables. The optical cables are 10 km (6.21 mi.) long, using the LC connector.

Four CWDM transceivers are listed below:

Series	SFP+ Model	Number	Rate
XG-SFP-LR(A1-4)	XG-SFP-LR-SM1431-A1	Access 1	10 Gbps
	XG-SFP-LR-SM1451-A2	Access 2	10 Gbps
	XG-SFP-LR-SM1471-A3	Access 3	10 Gbps
	XG-SFP-LR-SM1491-A4	Access 4	10 Gbps

Ruijie Networks Co., Ltd.

For further information, please visit our website https://www.ruijienetworks.com