**Manuals+** — User Manuals Simplified.



# QSFPTEK MUX DEMUX 100GHz C20-C59 Wavelength Multiplexer Demultiplexer User Guide

**MUX DEMUX & OADM**
**Quick Start Guide**
**V2.0**

**Contents**

**MUX DEMUX 100GHz C20-C59 Wavelength Multiplexer Demultiplexer**

QSFPTEK Mux Demux & OADM Quick Start Guide
CWDM Mux Demux
DWDM Mux Demux
DWDM OADM

## Introduction

The CWDM and DWDM Mux Demux device is designed by QSFPTEK. These products are available in FMU Plug-in Module and 1U Rack. Their line type includes single fiber and dual fiber, the CWDM Mux Demux channels include 8/9CH, the DWDM Mux Demux channels include 4/8/16/40 /64CH, the DWDM OADM channels include 8/16CH. Supports optional Monitor, Expansion and 1310nm Port.

We appreciate your decision to select QSFPTEK FMU&1U Mux Dmux & OADM. This manual is intended to help you become acquainted with the Mux Demux & OADM design and provide instructions for implementing the Mux Demux & OADM into your network.
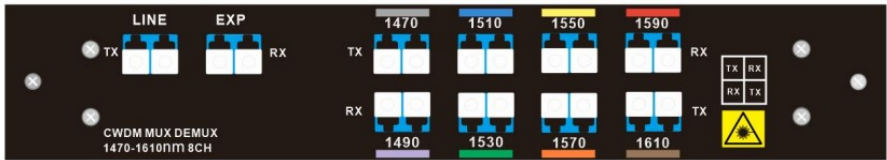


## Accessories



Bracket Screws x4          Bracket Nuts x4          (Only 1U Model) Mounting Bracket x2

## Functional Ports Overview

8CH CWDM Mux Demux, Dual Fiber, FMU

| Port Wavelengths | |
| --- | --- |
| 1470nm RX → TX Line | RX Line → 1470nm TX |
| 1490nm RX → TX Line | RX Line → 1490nm TX |
| 1510nm RX → TX Line | RX Line → 1510nm TX |
| 1530nm RX → TX Line | RX Line → 1530nm TX |
| 1550nm RX → TX Line | RX Line → 1550nm TX |
| 1570nm RX → TX Line | RX Line → 1570nm TX |
| 1590nm RX → TX Line | RX Line → 1590nm TX |
| 1610nm RX → TX Line | RX Line → 1610nm TX |
| **Functional Ports** | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |

**8CH CWDM Mux Demux, Dual Fiber, 1U**



| Port Wavelengths | |
| --- | --- |
| 1470nm RX → TX Line | RX Line → 1470nm TX |
| 1490nm RX → TX Line | RX Line → 1490nm TX |
| 1510nm RX → TX Line | RX Line → 1510nm TX |
| 1530nm RX → TX Line | RX Line → 1530nm TX |
| 1550nm RX → TX Line | RX Line → 1550nm TX |
| 1570nm RX → TX Line | RX Line → 1570nm TX |
| 1590nm RX → TX Line | RX Line → 1590nm TX |
| 1610nm RX → TX Line | RX Line → 1610nm TX |
| **Functional Ports** | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |

9CH CWDM Mux Demux, Single Fiber, 1U

| Port Wavelengths | |
|---|---|
| Line → 1270nm TX | 1290nm RX → Line |
| Line → 1310nm TX | 1330nm RX → Line |
| Line → 1350nm TX | 1370nm RX → Line |
| Line → 1390nm TX | 1410nm RX → Line |
| Line → 1430nm TX | 1450nm RX → Line |
| Line → 1470nm TX | 1490nm RX → Line |
| Line → 1510nm TX | 1530nm RX → Line |
| Line → 1550nm TX | 1570nm RX → Line |
| Line → 1590nm TX | 1610nm RX → Line |
| **Functional Ports** | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |

8CH DWDM OADM, East and West, Dual Fiber, 1U

| Port Wavelengths | |
|---|---|
| RX Line W → TX C29 W | RX Line E → TX C29 E |
| RX Line W → TX C30 W | RX Line E → TX C30 E |
| RX Line W → TX C31 W | RX Line E → TX C31 E |
| RX Line W → TX C32 W | RX Line E → TX C32 E |
| RX Line W → TX C33 W | RX Line E → TX C33 E |
| RX Line W → TX C34 W | RX Line E → TX C34 E |
| RX Line W → TX C35 W | RX Line E → TX C35 E |
| RX Line W → TX C36 W | RX Line E → TX C36 E |
| RX C29 W → TX Line W | RX C29 E → TX Line E |
| RX C30 W → TX Line W | RX C30 E → TX Line E |
| RX C31 W → TX Line W | RX C31 E → TX Line E |
| RX C32 W → TX Line W | RX C32 E → TX Line E |
| RX C33 W → TX Line W | RX C33 E → TX Line E |
| RX C34 W → TX Line W | RX C34 E → TX Line E |
| RX C35 W → TX Line W | RX C35 E → TX Line E |
| RX C36 W → TX Line W | RX C36 E → TX Line E |
| RX Line W → TX Line E (Other Than C29-C36) | |
| RX Line E → TX Line W (Other Than C29-C36) | |
| Functional Ports | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |
| The TX of the Channel Port is drop, and RX is add | |

8CH DWDM OADM, East or West, Dual Fiber, 1U

| Port Wavelengths | |
|---|---|
| RX Line W → TX C29 W | RX C29 W → TX Line W |
| RX Line W → TX C30 W | RX C30 W → TX Line W |
| RX Line W → TX C31 W | RX C31 W → TX Line W |
| RX Line W → TX C32 W | RX C32 W → TX Line W |
| RX Line W → TX C33 W | RX C33 W → TX Line W |
| RX Line W → TX C34 W | RX C34 W → TX Line W |
| RX Line W → TX C35 W | RX C35 W → TX Line W |
| RX Line W → TX C36 W | RX C36 W → TX Line W |
| RX Line W → TX Line E (Other Than C29-C36) | |
| RX Line E → TX Line W (Other Than C29-C36) | |
| Functional Ports | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |
| The TX of the Channel Port is drop, and RX is add | |

4CH DWDM Mux Demux, Side A, Single Fiber, FMU



| Port Wavelengths | |
|---|---|
| C21 RX → TX Line | RX Line → C45 TX |
| C22 RX → TX Line | RX Line → C46 TX |
| C23 RX → TX Line | RX Line → C47 TX |
| C24 RX → TX Line | RX Line → C48 TX |
| Functional Ports | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |

4CH DWDM Mux Demux, Side B, Single Fiber, FMU

| Port Wavelengths | |
| --- | --- |
| C45 RX → TX Line | RX Line → C21 TX |
| C46 RX → TX Line | RX Line → C22 TX |
| C47 RX → TX Line | RX Line → C23 TX |
| C48 RX → TX Line | RX Line → C24 TX |
| **Functional Ports** | |
| RX EXP → TX Line (The Mux that needs to be connected) | |
| RX Line (The Mux that needs to be connected) → TX EXP | |
| 1310nm & Expansion Port for Capacity Enhancement | |
| The Monitor Port Extracts 1% of the Signal for Monitoring Channel Power Levels | |

## Installation Requirements

### Tools Preparation

- Screwdriver
- Static-proof wristband
- Bolt

### Safety Principles
Keep dustless and clean during or after the installation.

- Put the cover in a safe place.
- Put tools in the right place where they are not easily falling down.
- Put on relatively tight clothes, fasten the tie or scarf well and roll up the sleeve, avoiding stumbling the machine box.
- Put on protective glasses if the environment may cause damage to your eyes.
- Avoid incorrect operations that may cause damage to humans or devices.

### Site Environment

- Make sure that the workshop is well-ventilated, the heat of electrical devices is well- discharged.
- Avoid damaging devices by following the electrostatic discharge prevention procedure.
- Mux Demux Hardware Installation Manual.
- Put the machine box in a place where cool air can blow off the heat inside the machine box.
- Make sure the machine box is sealed.

**Installation**
**FMU Plug-in Module**



Plug the FMU CWDM/DWDM Mux Demux into a FMU 2-Slot 1U Chassis

- Position the module to match the chassis shelf.
- Insert module into the shelf space carefully.
- Apply pressure to engage the M3 captive screws, then proceed to tighten them on both sides.



**Mounting The Chassis in a Rack**

- Install the mounting bracket on the right and left side.
- Install the chassis that inserted CWDM/DWDM Mux Demux into the rack carefully.
- Tighten them with M6x12mm screws and M6 nuts.

**1U Rack Mount**

- Install the mounting bracket on the right and left side.
- Install the CWDM/DWDM Mux Demux into the rack carefully.
- Tighten them with M6x12mm screws and M6 nuts.

## Connecting Fiber Cable



## Support and Other Resources

- Contactus **https://www.gsfptek.com/company/contact-us.html**
- Customer Success **https://www.qsfptek.com/resources/customer-success-stories**
- Email **support@gsfptek.com**

**Product Warranty**
The Mux Demux & OADM products are backed by a 3-year limited warranty supported by QSFPTEK.
For more details about applying qualifications, please live chat or email **sales@qsfptek.com** for support.

# QSFPTEK

## Documents / Resources

| | |
|---|---|
|  | **QSFPTEK MUX DEMUX 100GHz C20-C59 Wavelength Multiplexer Demultiplexer** [pdf] User Guide<br>MUX DEMUX 100GHz C20-C59 Wavelength Multiplexer Demultiplexer, MUX DEMUX, 100GHz C20-C59 Wavelength Multiplexer Demultiplexer, C20-C59 Wavelength Multiplexer Demultiplexer, Wavelength Multiplexer Demultiplexer, Multiplexer Demultiplexer, Demultiplexer |

## References

-  **QSFPTEK - Compatible Optical Transceivers Factory Outlet**
-  **Customer Success Stories - QSFPTEK**
- **User Manual**