



# FRM220-MD40 WA/WB FRM220-MD80 WA/WB

4-Ch Single Fiber CWDM MUX/DeMUX  
8-Ch Single Fiber CWDM MUX/DeMUX

The Single Fiber Optical Multiplexers are available in 4 or 8 channels versions and are used to combine signals from the traffic cards on to a single fiber. The FRM220-MD40-WA is a 4 channel single fiber MUX/DeMUX modular design card for CWDM wavelengths including 1471nm, 1511nm, 1551nm, 1591nm. The FRM220-MD40-WB is a 4 channel Single fiber MUX/DeMUX, modular design card for CWDM wavelengths including 1491nm, 1531nm, 1571nm, 1611nm. The FRM220-MD80-WA is a 8 channel single fiber MUX/DeMUX modular design card for CWDM wavelengths including 1271nm, 1291nm, 1311nm, 1331nm, 1351nm, 1411nm, 1431nm, 1451nm. The FRM220-MD80-WB is a 8 channel Single fiber MUX/DeMUX, modular design card for CWDM wavelengths including 1471nm, 1491nm, 1511nm, 1531nm, 1551nm, 1571nm, 1591nm, 1611nm. The Single fiber MUX/DeMUX cards provide the primary wave division and combination functions for CWDM. Line side wavelengths require translation to client side equipment via a transponder card.

## Features

- Full native mode performance
- Optical connectors
- Passive model requires no power
- Protocol transparent, no limitation
- Utilizes industry standard ITU-T CWDM wavelength

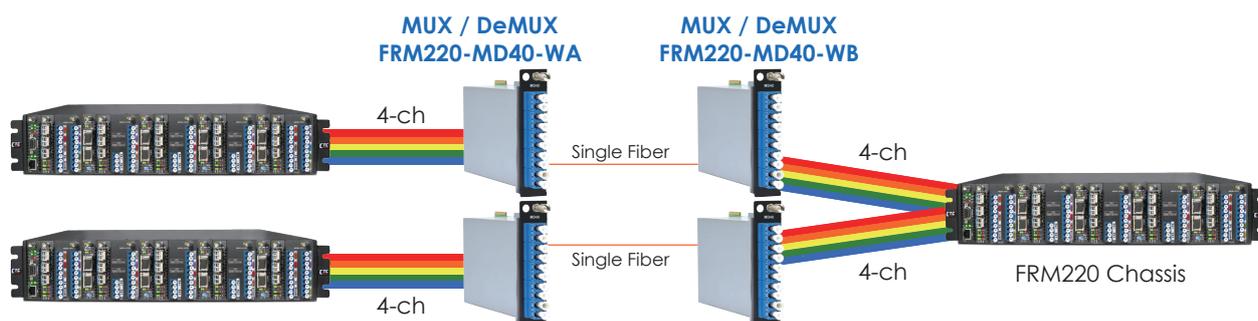
## Specifications

Connector	LC
Standards	ITU-T G.694.2
Wavelength	FRM220-MD40-WA : 1471, 1511, 1551, 1591nm FRM220-MD40-WB : 1491, 1531, 1571, 1611nm FRM220-MD80-WA : 1271, 1291, 1311, 1331, 1351, 1411, 1431, 1451nm FRM220-MD80-WB : 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611nm
Insertion Loss	< 1.8dB

Return Loss	>45dB
Dimensions	MD40 WA/WB :155 x 88 x 23 mm (D x W x H) MD80 WA/WB :155 x 88 x 42 mm (D x W x H)
Weight	FRM220-MD40 WA/WB : 200g FRM220-MD80 WA/WB : 380g
Temperature	0 ~ 50 °C (Operating) -10 ~ 70 °C (Storage)
Humidity	0 ~95% non-condensing
Certification	RoHS compliant

## Application

### CWDM MUX/DeMUX



FRM220-MD40 WA/WB inserts in 20-Slot Chassis

## Ordering Information

Model Name	Description
FRM220-MD40-WA	4-ch CWDM MUX/DeMUX (1471, 1511, 1551, 1591nm), Bidi on WAN port
FRM220-MD40-WB	4-ch CWDM MUX/DeMUX (1491, 1531, 1571, 1611nm), Bidi on WAN port
FRM220-MD80-WA	8-Ch CWDM MUX/DeMUX (1271 ~ 1451nm), Bidi on WAN port
FRM220-MD80-WB	8-Ch CWDM MUX/DeMUX (1471 ~ 1611nm), Bidi on WAN port

Note: This card may be placed in CH01 standalone chassis. (FRM220-MD40 WA/WB)  
This card may be placed in CH02 standalone chassis. (FRM220-MD80 WA/WB)

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Example: FRM220 - MD40-WA