

Description

The FRM220-MD40 is 4 channels MUX / DEMUX, modular design card for CWDM wavelengths including 1510nm, 1530nm, 1550nm, 1570nm. The FRM220-MD40-UP02 is 4 channels MUX / DEMUX, modular design card for CWDM wavelengths including 1470nm, 1490nm, 1590nm, 1610nm and two upgrade ports for CWDM wavelength ranges of 1503nm ~ 1577nm and 1260nm ~ 1457nm. The FRM220-MD80-UP01 is 8 channels MUX / DEMUX, modular design card for CWDM wavelengths including 1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570, 1590, 1610nm and one upgrade port for CWDM wavelength range of 1260nm ~ 1457nm. The MUX / DEMUX cards provide the primary wave division and combination functions for CWDM. Line side wave lengths require translation to client side equipment via a transponder card.

Features

- Full native mode performance
- Optical connectors : LC /UPC
- Passive model requires no power
- Protocol transparent, no limitation
- Utilizes industry standard ITU CWDM wavelength
- High isolation WDM
- Low insertion loss
- Wide Operation wavelength Range
- Environmentally Stable

User Guide

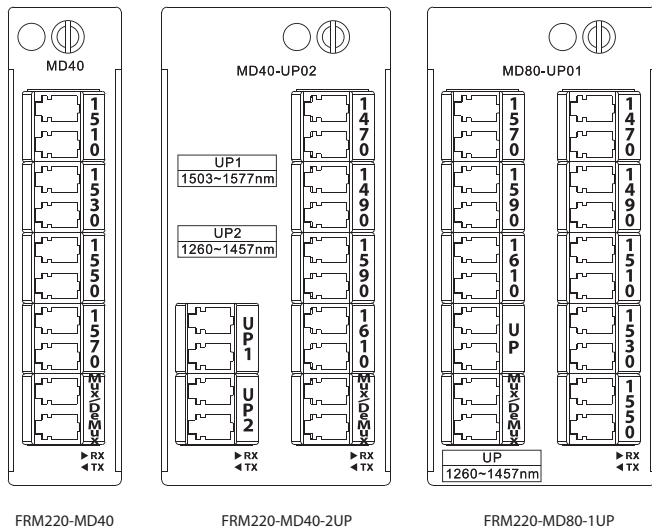
CWDM MUX / DEMUX

FRM220-MD40
FRM220-MD40-UP02
FRM220-MD80-UP01



Panel

- Figure #1. Front Panel of FRM220-MDXX



Specifications

Connector : LC /UPC
Standard : ITU-T G.694.2 (CWDM grid)

- **FRM220-MD40** : 4 Wavelength CWDM Mux / DeMux Card
Wavelengths : 1510, 1530, 1550, 1570nm
Insertion Loss : <1.8dB (including connector loss)
Return Loss : >45dB
- **FRM220-MD40-2UP** : 4 Wavelength CWDM Mux / DeMux Card + 2 upgrade ports
Wavelengths : 1470, 1490, 1590, 1610nm
Upgrade port 1 : 1503 ~ 1577nm
Upgrade port 2 : 1260 ~ 1457nm
Upgrade port isolation : >30dB
Insertion Loss : < 2.2dB (including connector loss)
Return Loss : > 45dB
- **FRM220-MD80-1UP** : 8 Wavelength CWDM Mux / DeMux Card + 1 upgrade port
Wavelengths : 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm
Upgrade port 1 : 1260 ~ 1457nm
Upgrade port isolation : > 30dB
Insertion Loss : < 2.8dB (including connector loss)
Return Loss : > 45dB
- **Environment :**
Operating Temperature : 0°C – 50°C
Storage Temperature : -10°C – 70°C
Humidity : 5 – 90%(non-condensing)

- **Dimension :** (D x W x H)
Single width blade card : 155 x 88 x 23mm
Double width blade card : 155 x 88 x 41mm
- **Weight :**
Single width blade card : 200g
Double width blade card : 300g

- **Certification :** RoHS

- **MTBF** >75,000 hours

Installation I

The installation of the Multiservice Mux/Demux cards is very straight forward. Once the FRM220 chassis has been mounted into a 2RU rack space, the Mux/Demux cards can be inserted in any order and in any slot. Align the card with the slot in the chassis. With the thumb screw at the top of the card, slide the card all the way into the chassis and secure the thumb screw. No tools are required, however, if a card's screw is over tightened, it may require loosening with a small flat blade screwdriver. Please refer to the figure below.

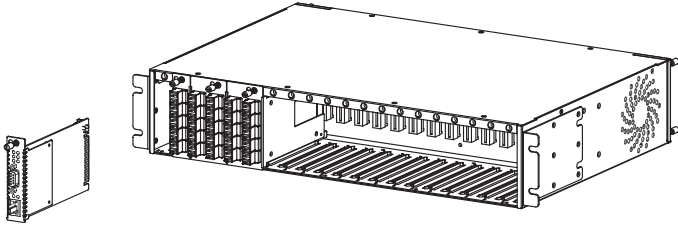


Figure 1. Mux/Demux card being inserted into 2U chassis.

Installation II

The Single width blade Mux/Demux card can be inserted into the one slot chassis for a completely assembled standalone unit.

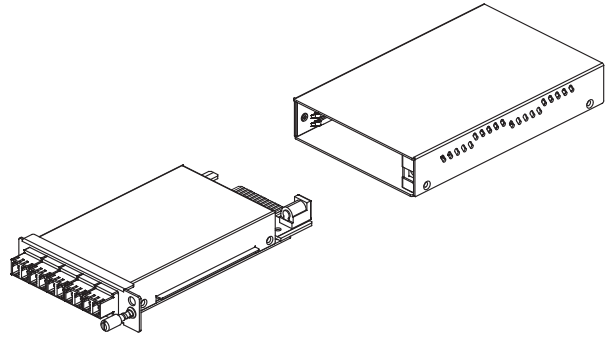


Figure 2. Mux/Demux card being inserted into 1-slot chassis.

Installation III

The double width blade Mux/Demux card can be inserted into two slots chassis for a completely assembled standalone unit.

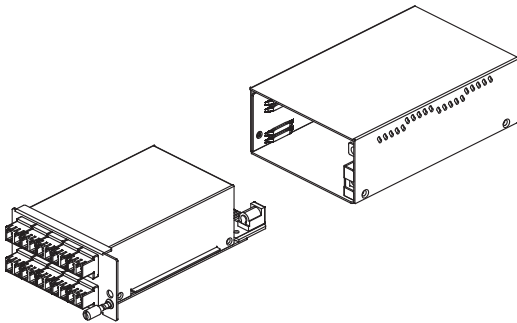


Figure 3. Mux/Demux card being inserted into 2-slot chassis.

NOTE: