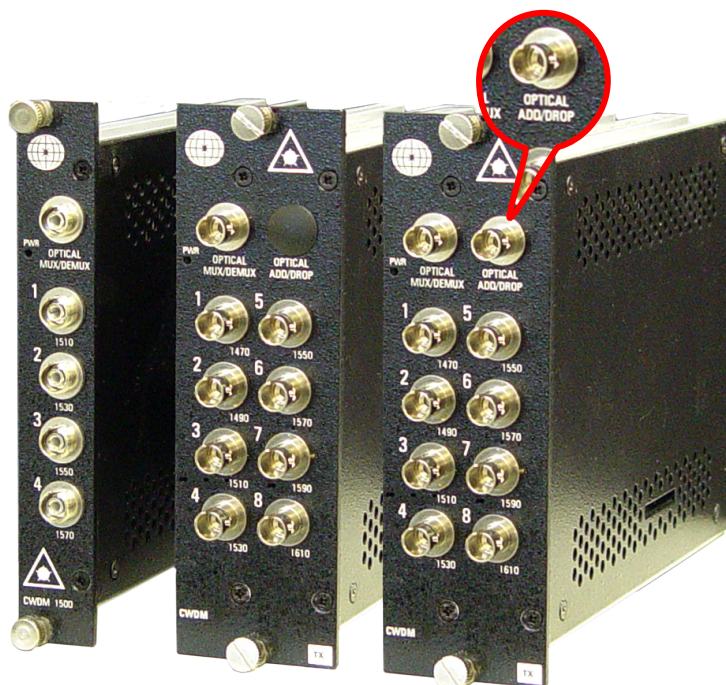




Optical Multiplexer / Demultiplexer 4 - 16 channels



CD-n-x

Part Numbers: CD-4-x, CD-8-x, CD-8-xX, CD-12-x, CD-16-x

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Table of Contents

1.0 PRODUCT DESCRIPTION.....3

2.0 INSTALLATION.....3

3.0 PRODUCT SPECIFICATIONS.....4

3.1 OPTICAL SIGNAL WAVELENGTH ASSIGNMENTS.....5

4.0 PIN-OUT DIAGRAMS6

5.0 TROUBLESHOOTING.....7

1.0 Product Description

Meridian's CD-n-x products are all passive optical Multiplexers/Demultiplexers, available in combinations from 4 to 16 channels.

Four and Eight channel cards are basic units in any combination, will combine or separate 4 or 8 individual wavelengths respectively to provide optical multiplexing over one single-mode fiber.

Add/Drop expansion port on CD-8-xX unit is used for connection to an additional 4 or 8-channel optical Multiplexer/Demultiplexer (up to 16-channels total).

All units are compatible with other Meridian's CWDM digital products.

This product series uses Meridian's standard 1-slot or 2-slot card assembly and plugs into the following Meridian chassis: SR-500, SR-1002, SR-1600 and SR-2001 & SR-2000 series equipment chassis.

Both ST and FC optical connectors are supported. Optional conformal coating provides an additional level of protection from environments with high humidity.

2.0 Installation

The CD-n-x products are compatible with standard Meridian's chassis and depending on part number, will occupy:

- One-slot (CD-4-x)
- Two-slots (CD-8-x and CD-8-xX)

To install in card in to the chassis, orient the card with the Meridian logo at the top of the module and slide onto the top and bottom card guides in the chassis. Press securely on the top and bottom of the module to ensure that it is fully seated in the chassis so that the electrical connector mates with the chassis -mounted motherboard. Once installed, manually tighten the two thumbscrews located at the top and bottom of the card. Do not use tools to secure these and do not over tighten.

Note: A fully loaded 19" sub-rack should have forced-air cooling to avoid excessive heat generation inside the chassis. A fan assembly tray (P/N FA-2000) with three (3) fans is available and should be installed under the 19" SR-2000/1 whenever possible.

3.0 Product Specifications

Optical										
Unit	CD-4-x			CD-8-x		CD-12-x		CD-16-x		
Insertion Loss	1.5 dB			2 dB		3 dB		3.5 dB		
Isolation	>20 dB			>20 dB		>20 dB		>20 dB		
Return Loss	>30 dB			>30 dB		>30 dB		>30 dB		
Optical Band	Optic code	Wavelength		Optic code	Wavelength		Optic code	Wavelength		
	20	1270/1290/1310/1330 nm		22	1270/1290/1310/1330/1350/1370/1390/1410 nm		24	1270/1290/1310/1330/1350/1370/1390/1410/1510/1530/1550/1570 nm		
	21	1510/1530/1550/1570 nm		23	1470/1490/1510/1530/1550/1570/1590/1610 nm			25 1270/1290/1310/1330/1350/1370/1390/1410/1470/1490/1510/1530/1550/1570/1590/1610 nm		

Connectors	
Optical	FC - SM fiber (default), ST - MM fiber (default)
Power	None - passive

Environmental	
Operating Temperature	-34°C to +74°C
Storage Temperature	-40°C to ~ +85°C
Relative Humidity	0 to 95% Non-condensing

Physical		
Card	One slot card	Two slot card
Dimensions	160 mm (6.3") L, 127 mm (5") H, 20mm (0.80") W	160 mm (6.3") L, 127 mm (5") H, 44 mm (1.7") W
Weight	~ 450 grams (16 Oz.)	~ 550 grams (19.4 Oz.)
No. of Slots	1	2
Module	See SR-500 Brochure	See SR-1002 Brochure

3.1 Optical Signal wavelength assignments

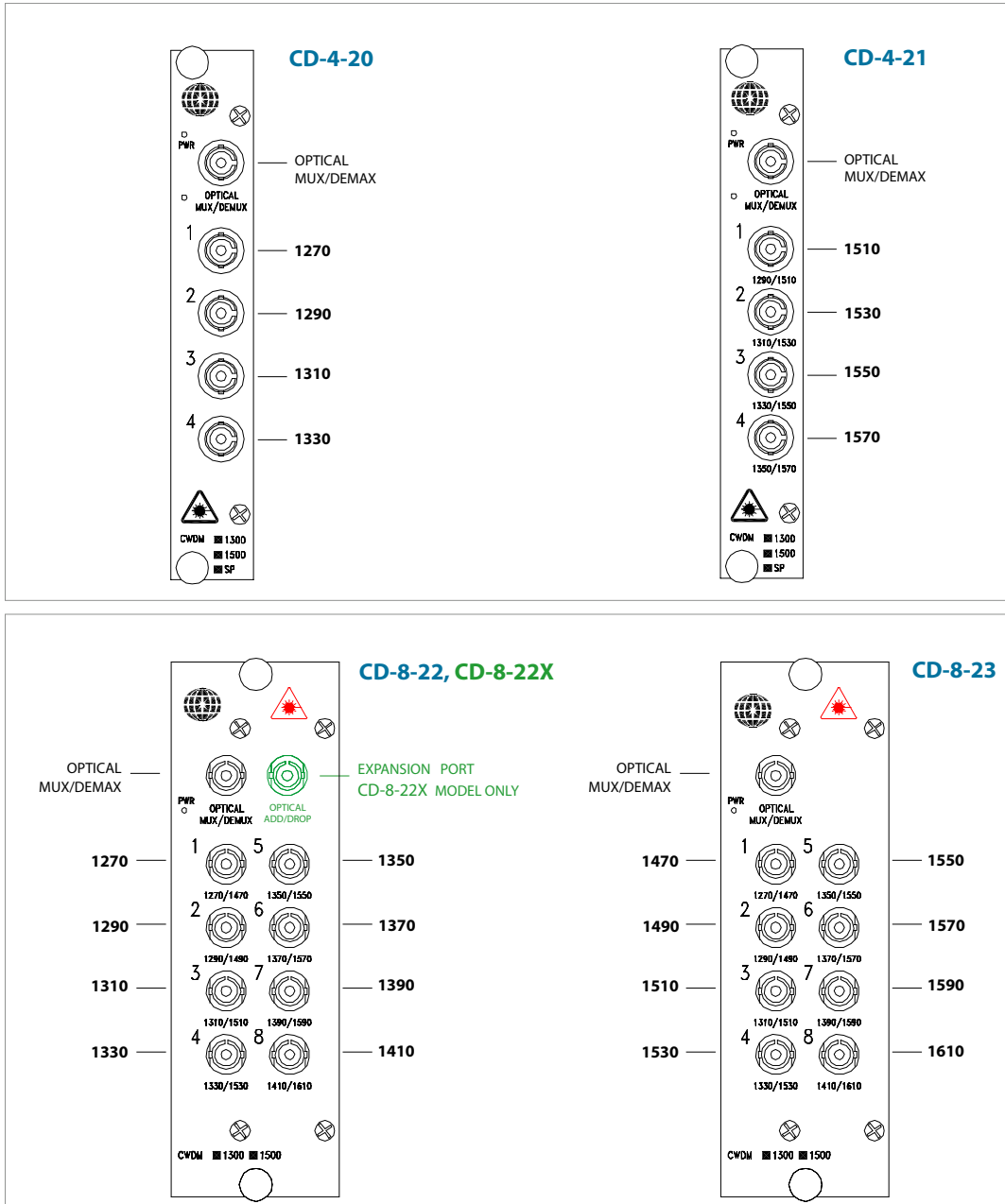
The tables below shows optical signal wavelength distribution by part number.

CD-4-20		CD-4-21	
Input / Output 1	1270nm	Input / Output 1	1510nm
Input / Output 2	1290nm	Input / Output 2	1530nm
Input / Output 3	1310nm	Input / Output 3	1550nm
Input / Output 4	1330nm	Input / Output 4	1570nm
CD-8-22, CD-8-22X		CD-8-23	
Input / Output 1	1270nm	Input / Output 1	1470nm
Input / Output 2	1290nm	Input / Output 2	1490nm
Input / Output 3	1310nm	Input / Output 3	1510nm
Input / Output 4	1330nm	Input / Output 4	1530nm
Input / Output 5	1350nm	Input / Output 5	1550nm
Input / Output 6	1370nm	Input / Output 6	1570nm
Input / Output 7	1390nm	Input / Output 7	1590nm
Input / Output 8	1410nm	Input / Output 8	1610nm

CD-12-24			CD-16-25		
CD-8-22X	Input / Output 1	1270nm	CD-8-22X	Input / Output 1	1270nm
	Input / Output 2	1290nm		Input / Output 2	1290nm
	Input / Output 3	1310nm		Input / Output 3	1310nm
	Input / Output 4	1330nm		Input / Output 4	1330nm
	Input / Output 5	1350nm		Input / Output 5	1350nm
	Input / Output 6	1370nm		Input / Output 6	1370nm
	Input / Output 7	1390nm		Input / Output 7	1390nm
	Input / Output 8	1410nm		Input / Output 8	1410nm
CD-4-21	Input / Output 1	1510nm	CD-8-23	Input / Output 1	1470nm
	Input / Output 2	1530nm		Input / Output 2	1490nm
	Input / Output 3	1550nm		Input / Output 3	1510nm
	Input / Output 4	1570nm		Input / Output 4	1530nm
				Input / Output 5	1550nm
				Input / Output 6	1570nm
				Input / Output 7	1590nm
				Input / Output 8	1610nm

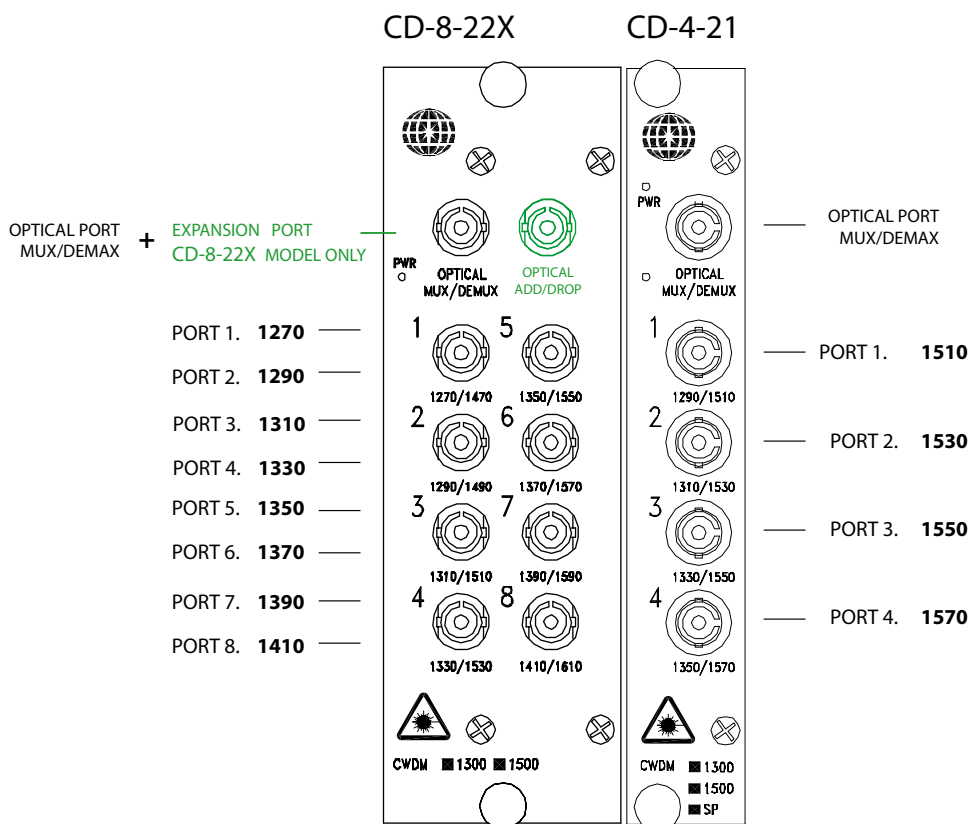
4.0 Pin-out diagrams

CD-4-x, CD-8-x, **CD-8-xX** PIN-OUT DIAGRAM



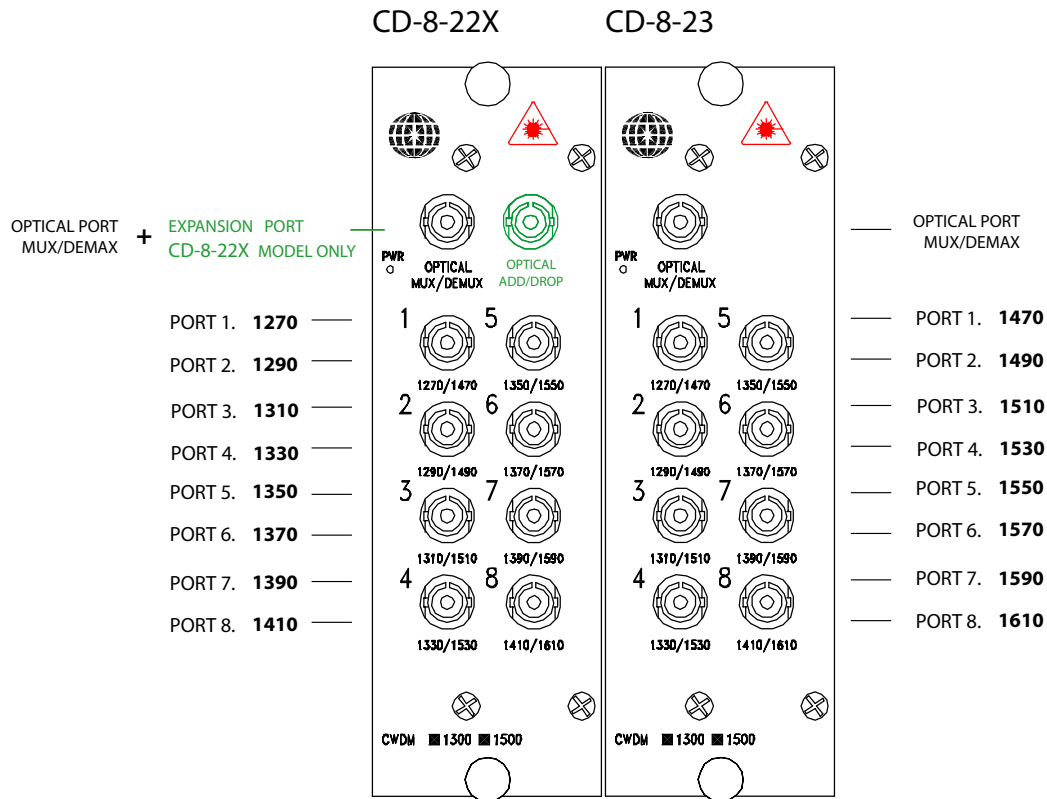
CD-12-24

PIN-OUT DIAGRAM



CD-16-25

PIN-OUT DIAGRAM



5.0 Troubleshooting

Below is a listing of several problems that may arise during the installation & operation of the modules. If you are having difficulty installing or operating the modules please refer to this list below.

Problem: *Module does not fit in chassis slots*

Action: Check module orientation. Meridian Logo must be on the top left hand side of the card.
Make sure the chassis sliding guides are aligned with the card extrusions.

Problem: *Card power LED does not lit or power indicator turns on and off*

Action: Check power supply to ensure that it is plugged in and turned on. If flashing continues, move module to another chassis or location in the same chassis, if available.

Problem: *Optical Signal Absent*

Action: Please verify Tx and Rx fibers connections at both ends of the link (Tx to Rx & Rx to Tx).
Check if fiber optic cable is not damaged.

If the problem still persists after reviewing the above items, please contact Meridian technical support (516-285-1000).

Notes:

