



Optical Fiber/Wavelength Converter

Installation Instructions

Part Number:



CX-1x1-SFP

(1-Channel Bi-Di Fiber/Wavelength Converter)

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CX-1x1-SFP

Fiber Optic Optical Wavelength Converter

Installation Instructions

1.0 Product Description

Meridian's CX-1x1 product is an optical converter with the ability to convert one way or bi-directional transmission over various fiber types, fiber quantities and wavelength. This includes conversion from single-mode to multimode, multimode to single-mode, wavelength conversion as well as converting from one fiber to two or two fibers to one. This product is extremely versatile with its various configuration options. This product series uses Meridian's standard 1-slot wide chassis mount card assembly and plugs into the following Meridian chassis: SR-500/S, SR-1002/S, SR-1600/S and SR-2001 & SR-2000 series equipment chassis.

SFP optical modules are supported. Optional conformal coating provides an additional level of protection from environments with high humidity.

2.0 Installation

Series CX-1x1 products are one-slot wide cards and, as such, occupy one slot in Meridian's standard chassis. To install in these 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" subrack 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 Optical Specifications

The SFP series products are available for both singlemode and multimode fiber applications and either one or two fiber versions. Refer to optical SFP table in for complete part and ordering information.

For more specifications on a SFP optic devices refer to SFP data sheet on Meridian website:

http://www.meridian-tech.com/downloads/datasheets/datasheet_SFP_optical_devices-x.pdf

Note: User can select Wavelength and Data Rate at time of ordering.



Figure 3.1
CX-1x1 Block Diagram

4.0 Front Panel Indicator Lights

There are 5 LED indicator lights mounted on the left side of the module's front panel (see Figure 4.1 below). These indicators show the operation status of the module's power and optical carriers. These indicators can be used for troubleshooting the module, electrical and optical connections.

Not all of the LEDs apply to all versions of these modules. Please refer to the module's part number for the appropriate signals, description.

Indicator	Function
Power	Green – ON
Tx MM Carrier	Optical output Green – OK
Rx MM Carrier	Optical Carrier input Green – OK
Tx SM Carrier	Optical output Green – OK
Rx SM Carrier	Optical Carrier input Green – OK

5.0 Front Panel Layout Diagram

Figures 6.1 below show the front panel layout, LED lights location and SFP optical connectors assignment for all CX-1x1-SFP cards.

CX-1X1-SFP PINOUT DIAGRAM

STATUS INDICATORS

PWR - POWER (GREEN)
DIAG - NA

STATUS INDICATORS PORT 1

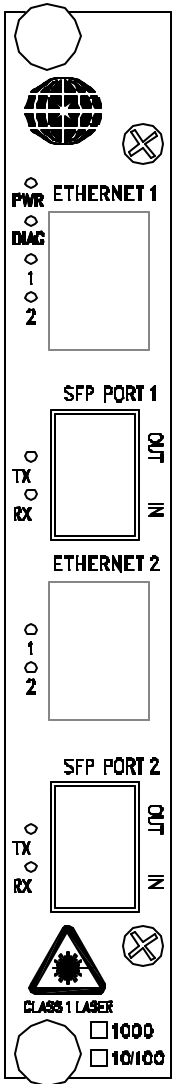
1 - NA
2 - NA

TX - TX CARRIER (GREEN)
RX - RX CARRIER (GREEN)

STATUS INDICATORS PORT 2

1 - NA
2 - NA

TX - TX CARRIER (GREEN)
RX - RX CARRIER (GREEN)



N/A

SFP OPTICAL PORT 1 IN/OUT

N/A

SFP OPTICAL PORT 2 IN/OUT

Figure 6.1
CX-1x1-SFP Front Panel Layout Diagram

6.0 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 “Globe” must be oriented on the top left hand side of the module. Make sure the card guides in the chassis are aligned with the extrusion on the module.

Problem: *Card power LED does not light when power to the module/subrack is applied 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: *No Tx Carrier light*

Action: Optical module is defective, return to factory for repair.

Problem: *No Rx Carrier light*

Action: Received optical signal absent or low. Check fiber connection and optical power at receiver.

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

Notes:

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