SOLID OPTICS

Quick Installation Guide for

EDFAMUX

EDFAMUX | SO-DUAL-EDFA | SO-EDFA

Revision	Initiate	Review	Approve	Release Date
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EDFAMUX QUICK INSTALLATION GUIDE

Welcome to the Quick Installation guide for your EDFAMUX. Follow these step-by-step instructions to configure your EDFAMUX for the first time and find helpful troubleshooting tips.

REQUIREMENTS

- Console cable (CISCO specification compliant)
- Ethernet cable
- Compatible transceivers
- LC patch cables (for transceiver connections)
- OTDR report of the dark fiber
- One-click cleaner tools (LC Connector)
- Optical camera

1. CONSOLE CONFIGURATION FOR IP ADDRESS AND PASSWORD CHANGE

1.1 Connect the Ethernet and console cables to their respective ports on the EDFAMUX.
1.2 Open PuTTY or your preferred terminal client.
1.3 Configure the baud rate to 115200.
1.4 Enter configuration mode using the default password (admin).

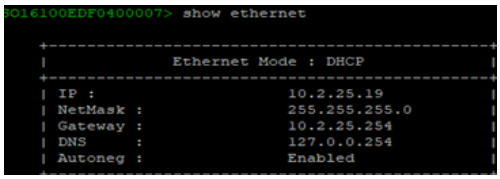
COMMANDS AND DESCRIPTIONS:

Command	Description
configure	Configuration
set ethernet static enable	Enable static IP
set ethernet ip 0.0.0.0	Set IP address
set ethernet mask 0.0.0.0	Set subnet mask
set system gw 0.0.0.0	Set gateway
set system passwd	Change password
commit	Save changes
reboot	Reboot controller

Note: Rebooting the management module or upgrading its firmware will not interrupt communication and previous settings will be retained.

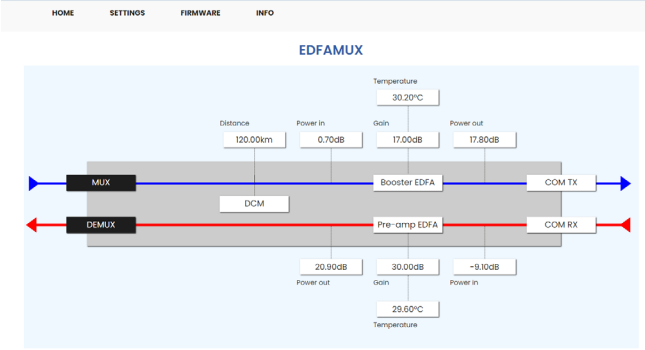
2. WEB CONFIGURATION ACCESS

2.1 Enter the configured IP address into your browser.
2.2 If the IP address is assigned by DHCP, use the following command in the console to determine the assigned IP address:

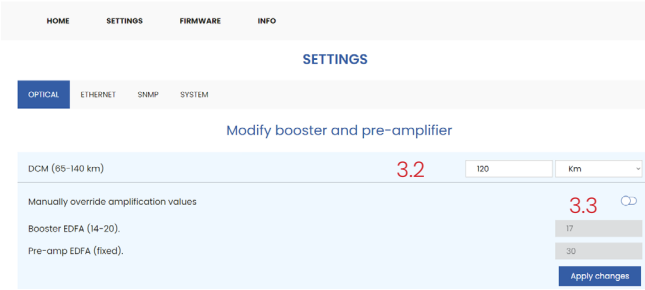


Command	Description
show ethernet	Info ethernet config

2.3 Access the EDFAMUX local website by typing the IP address into your browser.



3. DCM and EDFAS Configuration



3.1 Go to settings menu, enter the password you set or use the default password (admin).
3.2 In the Optical submenu under DCM, input the distance from the OTDR report. This will automatically adjust the EDFA configuration. Click "Apply Changes" to save.
3.3 To manually adjust EDFAs or DCM, enable the "Manually Override Amplification Values" by clicking the slide button, make the necessary changes, and click "Apply Changes" to save.

4. CONNECTING PATCH CABLES TO THE EDFAMUX

4.1 Always inspect optics, patch cables, and EDFAMUX connectors with an optical camera before connecting or disconnecting them to avoid unstable connections and CRC errors.

Note: The cleaning procedure is included with this document.

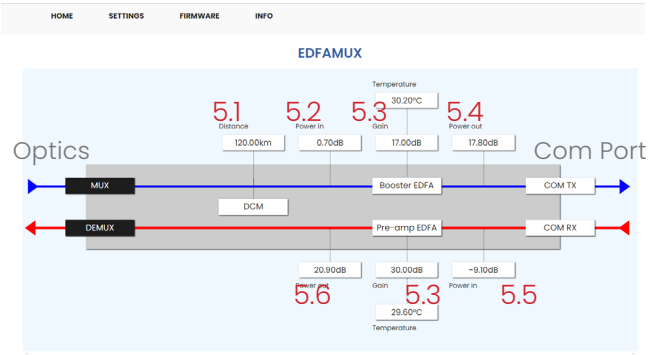
4.2 Connect the dark fiber cable to the COM port of the EDFAMUX at both ends. Then, use a patch cable to connect only one optic to each EDFAMUX during the initial configuration.

Note: Once a stable connection between the two EDFAMUX units is established and the Rx values of the optics are confirmed to be correct, you can proceed to connect the remaining optics.

4.3 For duplex EDFAMUX:
Rx values should be between 2 and 5dB
⚠ (damage occurs at 8dB).

For simplex EDFAMUX:
Rx values should be between -3 and 1dB
⚠ (damage occurs at 4dB).

5. INFORMATION & TROUBLESHOOTING



If you encounter issues, go to the homepage to verify values:

5.1 The DCM module matches the line fiber type.
5.2 The booster power input should be almost identical to the other EDFAMUX. If not, clean the connections between the optics and EDFAMUX with the lower value, and inspect the connectors with an optical camera.
5.3 The gain determines the level of amplification applied.
5.4 The total value transmitted from the EDFAMUX COM port Tx.
5.5 The total value received by the pre-amp should be nearly the same as the other EDFAMUX. Clean the cable connected to the COM port of the EDFAMUX, and inspect with an optical camera.
5.6 The pre-amp power output should be similar to the other EDFAMUX, resulting in comparable Rx values. Discrepancies suggest a dirty patch cable from the lower Rx optic. Clean the connections, and inspect with an optical camera.

6. SUPPORT

Cleanliness is crucial. Most connection losses or troubleshooting issues are caused by dirty connectors. Ensure you have an optical camera on-site and clean each connector before connecting it to the EDFAMUX.

If you need assistance, please contact us at:

edfamux@solid-optics.eu

To provide effective support, please include the following information:

1. Screenshots of the home page of both EDFAMUX units.
2. Tx and Rx values of the optics connected on each side.
3. Model and software version of your switch or router.
4. Recent OTDR test details, specifying if it was taken from cabinet to cabinet or from patch panel to patch panel.

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