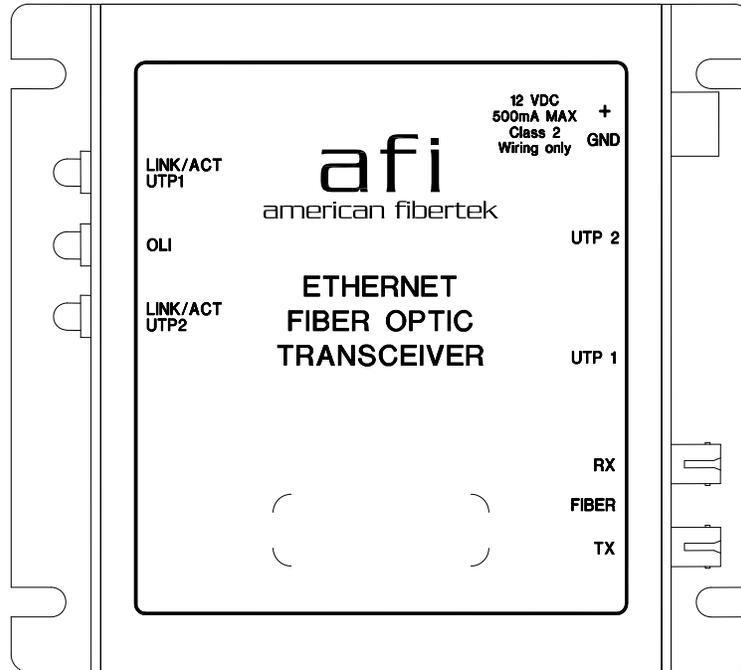


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Instruction Manual

Series-46 Ethernet Data Transceiver

INSTALLATION AND OPERATION INSTRUCTIONS

INTRODUCTION

Thank you for purchasing your American Fibertek Series 46 Series Ethernet data transceiver. Please take a few minutes to read these installation instructions in order to obtain the maximum performance from this product.

FUNCTIONAL DESCRIPTION

The Series 46 transmitter converts a single 10/100Base-TX Ethernet input into an optical output using a 1310 nm wavelength source and also converts an optical Ethernet input signal returning on the same fiber into an electronic Ethernet output using an 1550 nm wavelength detector. The Series 46 receiver converts a single Ethernet input into an optical output using a 1550 nm wavelength source and also converts an optical Ethernet input signal returning on the same fiber into an electronic Ethernet output using an 1310 nm wavelength detector. For 2 fiber units, each direction carries the signal on a 1310nm wavelength.

Series 46 is configured to auto negotiate either 10Base-T or 100Base-TX Ethernet data at full or half duplex. The Series 46 also provides an auto MDI/MDIX interface which eliminates the need to provide crossover cables depending on the equipment that it is connected to.

The 46 Series is available in the following options (see datasheets for more detail).

- 1 fiber or 2 fiber optical connections
- The FX (100Mbs) only
- SC or ST optical connectors
- Multi-mode or Singlemode
- Modules or Rackcards

INSTALLATION

THE INSTALLATION OF THIS UNIT SHOULD BE MADE BY A QUALIFIED SERVICE PERSON(S) AND MUST CONFORM TO ALL LOCAL CODES.

Mount the unit to a secure surface using #8 (3mm) hardware in four places. See the drawing on the next page for mounting dimensions. Be sure to allow sufficient room for the required minimum bend radius of the fiber cable used.

POWER SOURCE

This module unit requires a +12VDC power source for proper operation. The DC input is diode protected. In the USA and in Canada an American Fibertek PS-12 is supplied with this unit. The negative side of the power input is directly connected to ground. ANSI/NFPA 70 Class 2 wiring is recommended. Power is supplied to the unit via a two pin terminal connector. Follow label on unit for proper orientation of +12 volt dc and ground.

The rackcard is powered from a subrack. Refer to the SR-20 and PSR-2 instructions for further details.

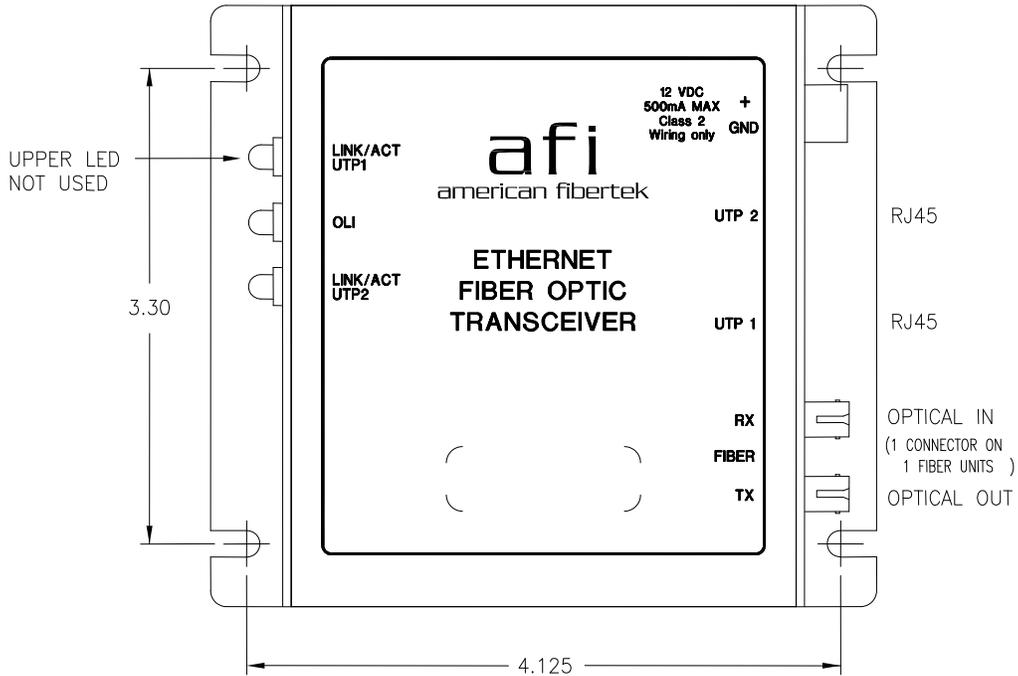
FIBER CONNECTION

The fiber optic connection is made via an SC or ST optical connector.

ETHERNET INPUT / OUTPUT CONNECTIONS

The UTP Ethernet input/output connection is made via a RJ45 plug. For optimum performance the shortest length of UTP wire practical should be used. Ethernet specifications permit a maximum CAT5 wire length of 100 meters.

The Series 46 module is shown below:



Series 46 STATUS INDICATORS

The Series 46 module provides the following LED status indicators to aid in installation and troubleshooting:

LINK / ACTIVITY UTP1 and UTP2

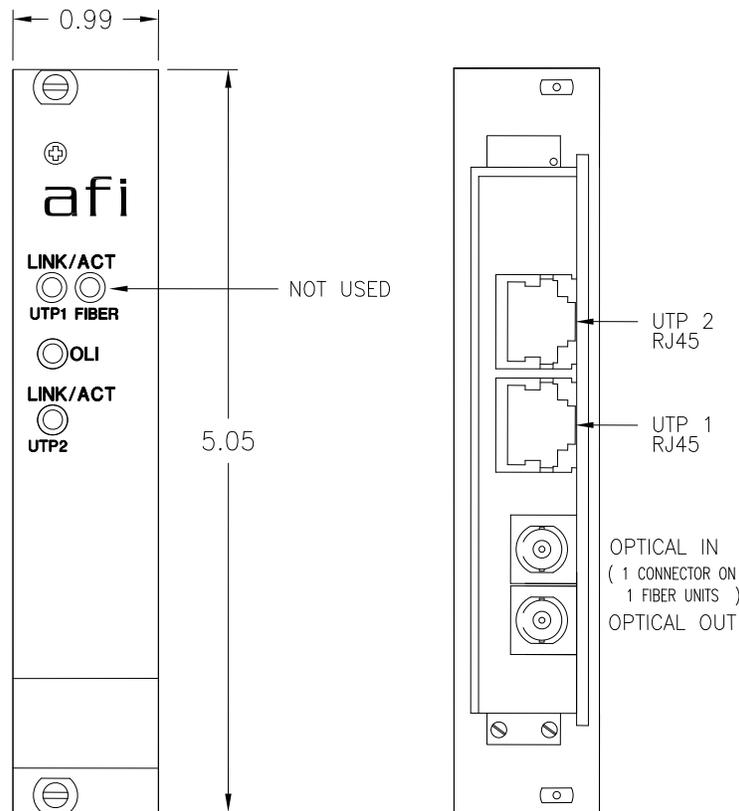
These LEDs indicate Data Link and Activity on the UTP and fiber ports.

- RED LED : Operating at 100 Base-TX
- AMBER LED : Operating at 10 Base-T
 - Blinking : UTP and Fiber Link is established and activity present
 - On Solid : UTP and Fiber Link is established and no activity present
 - Off : UTP and Fiber Link is not established

OLI

- Green : Indicates DC power is on and the optical input power is within the acceptable range.
- Red : Indicates DC power is on and the optical input power is not within the acceptable range.

The Series 46 Rackcard is shown below.



Series 46 STATUS INDICATORS

The Series 46 module provides the following LED status indicators to aid in installation and troubleshooting:

LINK / ACTIVITY UTP1 and UTP2

These LEDs indicate Data Link and Activity on the UTP and fiber ports.

RED LED : Operating at 100 Base-TX

AMBER LED : Operating at 10 Base-T

Blinking : UTP and Fiber Link is established and activity present

On Solid : UTP and Fiber Link is established and no activity present

Off : UTP and Fiber Link is not established

OLI

Green : Indicates DC power is on and the optical input power is within the acceptable range.

Red : Indicates DC power is on and the optical input power is not within the acceptable range

**This unit complies with 21
CFR 1040.10 and 1040.11**

LIFETIME WARRANTY INFORMATION

American Fibertek, Inc warrants that at the time of delivery the products delivered will be free of defects in materials and workmanship. Defective products will be repaired or replaced at the exclusive option of American Fibertek. A Return Material Authorization (RMA) number is required to send the products back in case of return. All returns must be shipped prepaid. This warranty is void if the products have been tampered with. This warranty shall be construed in accordance with New Jersey law and the courts of New Jersey shall have exclusive jurisdiction over this contract. **EXCEPT FOR THE FOREGOING WARRANTY, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, EXPRESSED OR IMPLIED, WHICH EXTENDS BEYOND THE WARRANTY SET FORTH IN THIS AGREEMENT.** In any event, American Fibertek will not be responsible or liable for contingent, consequential, or incidental damages. No agreement or understanding, expressed or implied, except as set forth in this warranty, will be binding upon American Fibertek unless in writing, signed by a duly authorized officer of American Fibertek.

SERVICE INFORMATION

There are no user serviceable parts inside the unit.

In the event that service is required to this unit, please direct all inquiries to:

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