

picoLink series

FOE-171p
Fiber Optic to SD Converter
Guide to Installation and Operation

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Radio Frequency Interference and Immunity

This unit generates, uses and can radiate radio frequency energy. If the unit is not properly installed and used in accordance with this guide, it may cause interference with radio communications. Operation with non-certified peripheral devices is likely to result in interference with radio and television reception. This equipment has been tested and complies with the limits in accordance with the specifications in:

FCC Part 15, Subpart B
CE EN50081-1:1992
CE EN50082-1:1992

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GUIDE TO INSTALLATION AND OPERATION

1 FOE-171p Fiber Optic to HD/SD Converter

1.1 Introduction

The FOE-171p is a compact stand-alone optical to electrical solution for receiving digital video signals over a single mode fiber optic link. The FOE-171p has been designed to work in conjunction with the FEO-171p Electrical to Optical Transmitter. The FOE-171p can be used stand-alone or can be mounted in a special rack tray that allows the picoLink fiber converters to become an optical to/from electrical patch field.

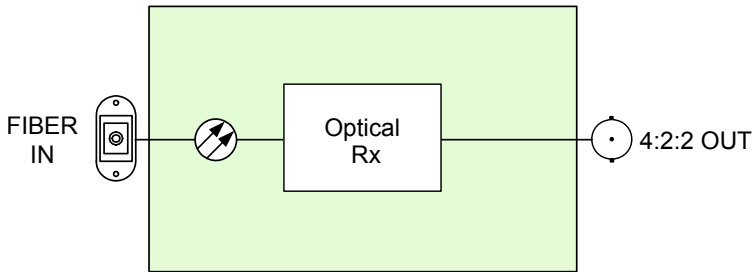


Figure 1: FOE-871p functional block diagram

1.2 Features

- Cost effective, compact and lightweight
- Supports SDI 270 Mbps SMPTE 259M-C
- Conforms to SMPTE 297M
- Reclocked input
- Single-mode with SC/PC connector
- Valid input signal indication
- Stand alone mounting
- Optional rack mount tray turns picoLink into optical patch field

2 Overview

Figure 2 illustrates the FOE-171p's major parts and their locations. The optical fiber input is connected using a single-mode SC connector, and the 4:2:2 digital video output appears on a BNC connector. Error status is provided by the status LED. Finally, the power source is connected to the mini-XLR type connector.

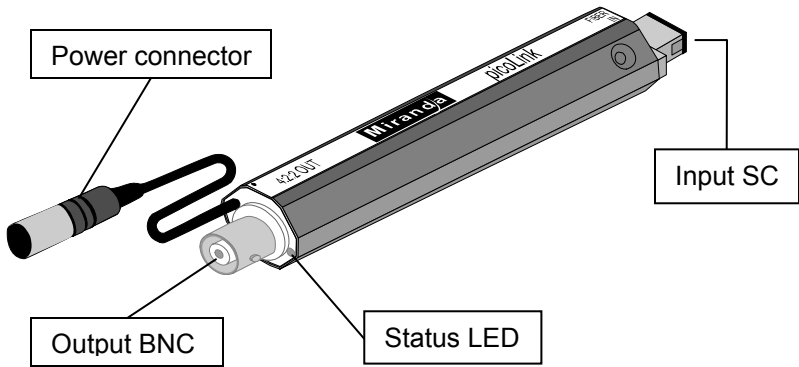


Figure 2: Overall view of the FOE-171p

3 Installation

3.1 Power Supply

The LKS-WSU power supply provides power to the FOE-171p for 110 V and 220 V operation. The power supply is a regulated +5 VDC@2.4 A power source. The FOE-171p employs a mini XLR-3 connector for its power needs. Figure 3 shows a detailed pinout of the male connector.

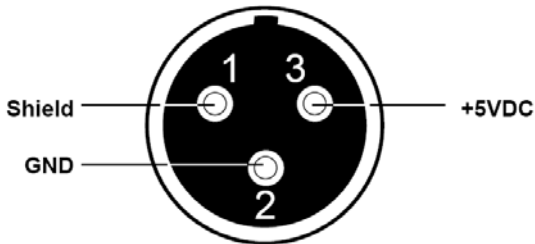


Figure 3: Power connector pinout

3.2 *Fiber Input*

Connect an optical signal to the SC connector labeled FIBER IN.

Class 1 laser product



Hazards for the Operator

Active optic fibers emit radiation invisible to the naked eye. Never look directly at the end of an active optic fiber.

Caution

Although not considered overly dangerous for the eye, avoid accidental exposure to the optical beam emitted from the fiber optic cable connected to the FOE-871p input.



3.3 *4:2:2 Digital Video Output*

A standard-definition digital video signal appears on the BNC labeled 4:2:2 OUT.

- The standard-definition serial digital output signal conforms to the SMPTE 259M-ABCD standard or the DVB-ASI (270 Mbps).

4 Operation

There are no operating controls on the FOE-171p.

4.1 Status LED

The bi-colored status LED, located next to the BNC output connector, is provided to identify any input errors. The following situations are flagged:

Off:	No DC power
Green:	Laser light detected with valid SDI signal
Red (steady):	Laser light detected but no valid SDI signal
Red (blinking):	No laser light detected

5 Specifications

Optical Input

Signal Compatibility:	270 Mbps SMPTE 259M-C Reclocked SMPTE 297M
Sensitivity:	-25 dB
Fiber Type:	Single Mode
Connector:	Optical SC/PC

Electrical Output

Signal:	SMPTE 259M-C (270 Mbps)
Return loss:	>15 dB up to 270 MHz
Jitter:	<0.2 UI p-p
Connector:	75 Ω BNC

General specifications

Processing delay:	<5 ns
Power:	1.25 W
Temperature operating range:	0 – 30° C