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- FCC Class A
- UL 1950
- CSA C22.2 No. 950
- EN60950
- CE
  - EN55022 Class B
  - EN50082-1

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- EN55022 (CISPR 22) - Radio Frequency Interference
- EN50082-1 (IEC801-2, IEC801-3, IEC801-4) - Electromagnetic Immunity
- EN60950 (IEC950) - Product Safety

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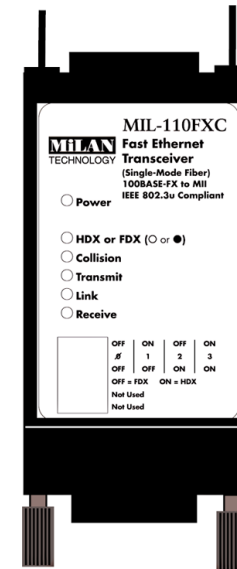
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# MIL-110FXC

## Fast Ethernet Transceiver

**Installation Guide**

This guide includes the following information:

- “Introduction” on page 2
- “Installation” on page 3
- “Configuration” on page 3
- “Slide Switches” on page 4
- “Indicators” on page 5

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## About The Manual

This document covers the Mil-110FXC Fast Ethernet Single Mode Fiber Transceiver. The “C” denotes an SC-type connector.

## Introduction

The MIL-110FX transceiver is a compact, 100BASE-FX transceiver that allows you to connect a 100BASE-FX single-mode fiber port to a 100BASE Fast Ethernet MII connector. When used with a Fast Ethernet switch, the device provides a cost-effective fiber cabling solution. This allows a switch or server, running in full-duplex, to transmit up to 15km.

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## Features

- 100BASE-FX port with an SC-type single mode (15KM) connector
- Standard Fast Ethernet MII connector
- IEEE 802.3u compliant
- Diagnostic LEDs

## Default Settings

The MIL-110FXC ships with all slide switches in the off(default) position.

- **Collision:** When illuminated, collision is occurring.
- **Transmit Data:** When illuminated, data is transmitting.
- **Link:** When illuminated, Link is sensed.
- **Receive Data:** When illuminated, data is being received.

### Calculating the Cabling Distance

The cable distance is limited to the attenuation loss over the cable, at splices, and connections. Power budget is determined by the launch power number, -15dBm, minus the receiver sensitivity number, -31dBm, which is 16dBm. Use the following equation to determine the correct cabling distance.

$$CL \leq 2 \times (\text{power budget} - 3 \times \text{the number of splices})$$

### Installation

1. Turn off the host device (optional).
2. Attach a duplex, 9/125  $\mu\text{m}$  single-mode fiber cable to the SC connector on the transceiver.
3. Insert the MII connector into the female 40-pin connector on the device you wish to connect.

### Configuration

### Connectors

Figure 1 is an example of the SC-type connector.

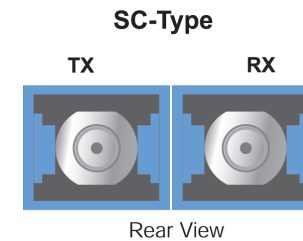


Figure 1. SC-type Connector

Figure 2 is an example of a 40-pin MII connector.

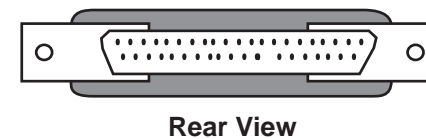


Figure 2. 40-pin MII Connector

## Slide Switches

The MIL-110FXC has slide-type switches, with five positions as shown in Figure 3. Slide to the right side for “on” or slide to the left side for “off”. The figure below shows switches in the “on” position.

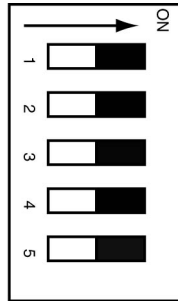


Figure 2

Figure 3

### Switch Bank

Use switches 1 and 2 to select a transceiver address—from 0 through 3. Almost all devices will expect to see address 0 selected. Use Table 1, “Configuration Option,” on page 5 for a device which needs to see an address different from 0.

Table 1: Configuration Option

SW1	SW2	Function Address
Off	Off	0 (Default)
On	Off	1
Off	On	2
On	On	3

NOTE: For a single transceiver on the MII, the transceiver should be set to '0' address (default). This causes the transceiver to power up in an isolate mode until the connecting device enables communication on the network. If this function address does not enable device, turn switch 1 to “on”.

Table 2: Switch 3

SW3	Functions
On	Half-duplex
Off	Full-duplex (Default)

NOTE: Switches 4 and 5 are not used. Setting either switch in the OFF position will render the unit inoperative(Inop).

### Indicators

- **POWER:** When illuminated, power is being received from the MII port.
- **HDX or FDX:** When illuminated, the MIL-110FXC is running at full-duplex operation (FDX). When the LED is off, the device is running at half-duplex operation(HDX).