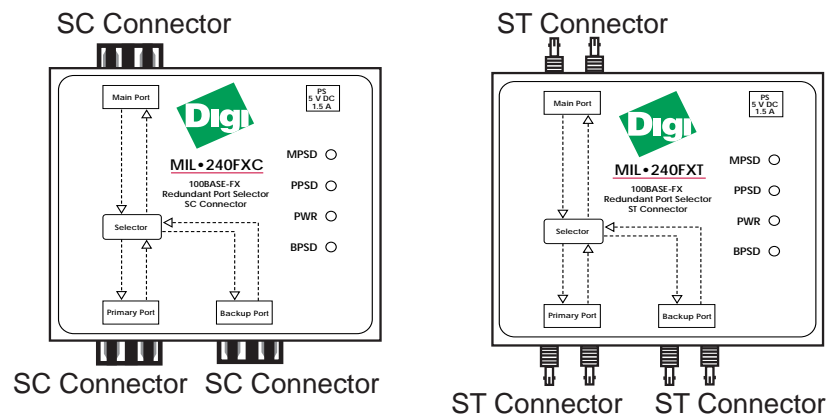




## MIL-240FXT/MIL-240FXC 100BASE-FX Redundant Port Selector



### Installation Guide

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## About this manual

This manual covers both the MIL-240FXT and the MIL-240FXC. The terms “MIL-240FX,” “transceiver,” and “device” are used throughout this document to describe either transceiver.

## Introduction

The MIL-240FXC/240FXT is a 100BASE-FX, fault-tolerant transceiver. It provides a redundant path for a critical Fast Ethernet device, such as a file server. The MIL-240FX has three 100BASE-FX ports: **Main Port**, **Primary Port**, and **Backup Port**.

Typically, the **Main Port** will connect to a critical Fast Ethernet device (i.e., a file server). The **Primary Port** and the **Backup Port** connect to two different ports of a switch, or two different ports of two different switches.

When the unit is powered on, the MIL-240FX checks the **Primary Port** for the presence of a link signal. If the signal is present, then the **Main Port** and the **Primary Port** will connect, and the **Backup Port** is disabled. Any device connected to the **Backup Port** will not detect a signal at this time. However, if the device does not detect a signal on the **Primary Port**, then the **Main Port** and **Backup Port** will connect.

## Features

- Three multi-mode, SC connector for the MIL-240FXC
- Three multi-mode, ST connector for the MIL-240FXT
- Compact aluminum enclosure
- External power supply (5V DC, 1.5 Amp)

## Installation

To install the MIL-240FX:

1. Connect the **Main**, **Primary** and **Backup Ports** to the appropriate devices. Use multi-mode 62.5/125mm fiber optic cables.
2. Supply power to the unit using the power supply adapter included with the unit. Make sure the **PWR** LED illuminates.
3. Check the **PPSD**, **BPSD** and **MPSD** LEDs for proper status. This depends on the status of the devices connected to the **Primary**, **Backup** and **Main Ports**.

## Theory of Operation

The transceiver for the **Main Port** selects either the **Primary Port** or the **Backup Port** for transmission and reception. The **Main Port** selects the **Primary Port** if the transceiver on the **Primary Port** detects a link signal. Otherwise, the **Main Port** selects the **Backup Port** if link port is good.

If the **Main Port** does not detect a link signal—no signal will be transmitted on the **Primary Port** and the **Backup Port**. If a link signal is not detected on the **Primary Port** and the **Backup Port**—no signal will be transmitted on the **Main Port**.

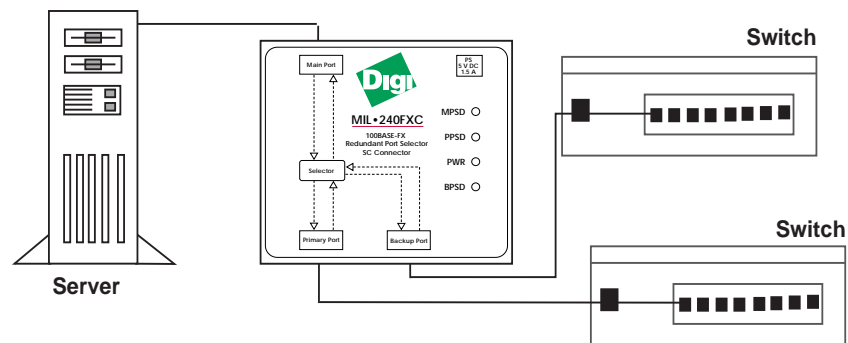


Figure 1. MIL-240FXC Connections

## Indicators

There are 4 LEDs on the MIL-240FXT/240FXC:

- **MPSD:** (Main Port Signal Detect): This LED illuminates when the unit detects an input signal at the **Main Port**. It is yellow.
- **PWR:** (Power): This LED illuminates when the unit is powered up (using the power supply adapter). It is green.
- **BPSD:** (Backup Port Signal Detect): This LED illuminates when the unit detects an input signal at the **Backup Port**. It is yellow.
- **PPSD:** (Primary Port Signal Detect): This LED illuminates when the unit detects an input signal at the **Primary Port**. It is yellow.

**Note:** When **MPSD** and **PPSD** illuminate at the same time, the node attached to the **Main Port** will connect to the node attached to the **Primary Port** (**BPSD** may be on).

When **MPSD** and **BPSD** illuminate at the same time, the node attached to the **Main Port** is connected to the node attached to the **Backup Port** (**PPSD** is off).

## Specifications

**Dimensions:** 4.0" x 3.5" x 1"

**Enclosure:** Aluminum (.50 thick)

### Power Supply

External power is required for the MIL-240FXT/240FXC. The system board draws 900 mA at normal operation in room temperature of 25 C.

- An 110 V AC wall mount for domestic use
- A 220 V AC with IEC socket converting to 5 V DC 1.5 Amp for international use

### Connectors



Figure 2. Connections

### Reliability

A 24 hour temperature cycling of 0° to 60° C without any dribble or BER degraded.

### Storage Temperature

- Minimum: -25° C
- Maximum: 75° C

### Operating Conditions

Table 1: Recommended Operation Conditions

Parameters	Minimum	Maximum
Operating Temperature	+5° C	+40° C
Humidity: Non-condensing	10%	95%
Signal Output Load	35 ohm	75 ohm
Supply Voltage	4.75 V	5.25 V
Ambient Operation	0	70

## Legal

### Regulatory Approvals

- FCC Class A
- UL 1950
- CSA 22 No. 950
- EN60950
- CE
  - EN55022 Class B
  - EN50082-1

### Canadian EMI Notice

This Class A digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

### European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

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

### Five-Year Limited Warranty

Digi International warrants to the original consumer or purchaser that each of its products, and all components thereof, will be free from defects in material and/or workmanship for a period of five years from the original factory shipment date. Any warranty hereunder is extended to the original consumer or purchaser and is not assignable.

Digi makes no express or implied warranties including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, except as expressly set forth in this warranty. In no event shall Digi be liable for incidental or consequential damages, costs, or expenses arising out of or in connection with the performance of the product delivered hereunder. Digi will in no case cover damages arising out of the product being used in a negligent fashion or manner.

### To Contact Digi

For prompt response when calling for service information, have the following information ready:

- Product serial number and rev.
- Date of purchase
- Vendor or place of purchase

Reach Digi Technical Support at 408/744-2751  
Or E-mail at "sun-tech@dgii.com"

Address: 1299 Orleans Drive  
Sunnyvale, CA 94089

Voice: 408/744-2775

Fax: 408/744-2793

E-mail: info@dgii.com