

# MIL-L1624XX

## One Port Fiber Module

### User Guide

(For use in MIL-S1600 and MIL-S2400 switches)



Figure 1.

## Introduction

This User Guide introduces the 100FX Modules which can be installed in the front panel of a MIL-S2400 or MIL-S1600 switch. Each Optional 100FX Module comes with a one-port fiber connector. The 100FX Modules are designed to extend the distance between the switch and other devices.

The maximum distance connected by optical fiber is up to 2 Km (multi-mode fiber) or 60 Km (single-mode fiber). You can regard this fiber port as the backbone in the networking infrastructure. There are five types of fiber port connectors including SC, ST, MT-RJ and VF-45 in multi-mode and SC and MT-RJ in single-mode.

## Front Panel

The Front Panels of the 100FX Modules include LED-indicators, two thumbscrews, DIP-switch, and one fiber port. The Front Panels of the 100FX Modules are shown as below. (Not shown is the MIL-1624MT-60 single-mode module with MT-RJ connectors).

MIL-S1624MT-60 not shown.

### 100FX Module with SC Connector

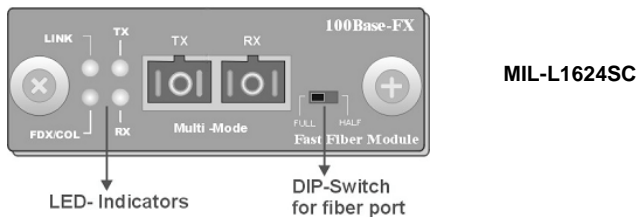


Figure 2. 100FX Module with SC Connector

### 100FX Module with SC single-mode Connector

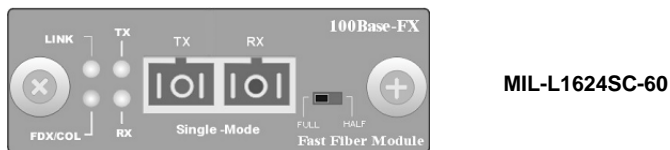


Figure 3. 100FX Module with SC single-mode Connector

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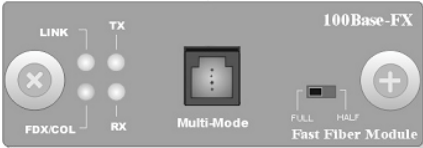
100FX Module with ST Connector



MIL-L1624ST

Figure 4. 100FX Module with ST Connector

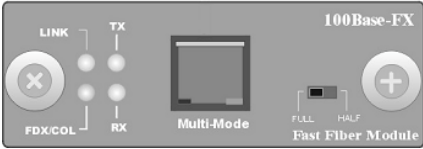
100FX Module with MT-RJ Connector



MIL-L1624MT

Figure 5. 100FX Module with MT-RJ Connector

100FX Module with VF-45 Connector



MIL-L1624VF

Figure 6. 100FX Module with VF-45 Connector

**Note :** DIP-switch is to set the fiber port for Full-duplex or Half-duplex.

## LED Indicators

The LED-Indicators provide real-time information of operation status. The following table provides descriptions of LED Indicator status and their meaning.

LED	Status	Description
<b>TX</b>	Blinks	Fiber port is transmitting data.
	Off	No data is transmitted.
<b>RX</b>	Blinks	Fiber port is receiving data.
	Off	No data is received.
<b>Link</b>	Green	The port is connected to a device.
	Off	No device attached.
<b>FD/COL</b>	Yellow	The port is operating in Full-duplex mode.
	Blinks	Collisions occurring.
	Off	No device attached or in half-duplex mode .

Table 1. The Description of LED-Indicators on 100FX Modules

### Features & Specifications

- Conforms to the IEEE 802.3u 100Base-FX & 802.3x Full Duplex Flow Control standard
- One-port 100Mbps optical fiber module
- LED-indicators for TX, RX, Link, and FDX/COL ( 4 LEDs ).
- One DIP-switch to set the fiber port for Full-duplex or Half-duplex.
- Max. Forwarding Rate: 148810 pps for 100Base-FX
- Dimensions: 102mm x 71mm x 24mm ( 4"x 2.8"x 1" )
- Weight : 60 ±5g
- Operating Temperature : 0°C~45°C ( 31°F~113°F )
- Environmental Humidity : 10% ~90% ( Non-condensing )
- EMI : FCC Class A, CE mark

### Installing a 100FX Module

The optional 100FX Modules are designed to be inserted in the MIL-S1600 or MIL-S2400 extension slot. Before installation, ensure that the power is disconnected. The module is NOT hot-swappable.

Follow the steps below to install the optional 100FX Module:

1. Power the MIL-S2400 or MIL-S1600 OFF before installing the 100FX Module.
2. Unscrew the thumbscrews on the blank bracket. Remove the blank bracket and set aside, but do not discard it. Put the blank bracket back in if you remove the new module.
3. Install the new 100FX Module by inserting it into the guides and

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sliding it in until it stops ( See Figure 7 ). Press it firmly until you feel the module snap into place. Never force, twist or bend the 100FX Module.

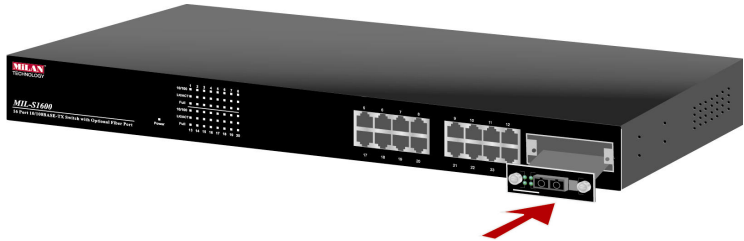


Figure 7. Install the 100FX Module by inserting it into the guides and sliding it in until it stops

4. Gently push the thumbscrews in and turn clockwise to tighten. Do not over tighten the thumbscrews.
5. Power the MIL-S2400 or MIL-S1600 ON. The Switch will automatically detect the 100FX Module. Plug the fiber cable connectors into the 100FX Module. Check the LEDs to verify that there is a link and proper connection.

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# Optical Fiber Specifications

The maximum distance between any two fiber optic devices is determined by a number of factors including the conversion modules used in the configuration. This table shows the specifications for each of the available modules and will assist in determining which fiber optic module is best for your installation.

Fiber Connector	Wavelength ( nm )	Avg. Launch Power ( dBm )	Avg. ( dBm ) Sensitivity
Connector ( SC )	1300	-18	-30
Connector ( SC single-mode )	1300	-6	-34
Connector ( ST )	1300	-18	-30
Connector ( MT-RJ )	1300	-15.7	-33.5
Connector ( VF-45 )	1300	-16	-33

Fiber Connector	Avg. Power Loss Budget ( dBm )	Max. FDX Fiber Distance ( Km )	Fiber Size ( um )
Connector ( SC )	12	2	62.5/125 50/125
Connector ( SC single-mode )	28	60	9/125 8/125
Connector ( ST )	12	2	62.5/125 50/125

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Connector ( MT-RJ )	17.8	2	62.5/125 50/125
Connector ( VF-45 )	17	2	62.5/125 50/125

**To Contact MiLAN Technology**

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

- Product serial number and revision
- Date of purchase
- Vendor or place of purchase

You can reach MiLAN Technology technical support at:

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