

8-Port Fast Ethernet TP/Fiber
TP/SC/SCS/ST/BS Series Module
User's Manual (625-0601-000)

1. Overview

Modules of 8-Port Fast Ethernet TP/Fiber Series are used for high-speed connection expansion in comprehensive managed switches. Five optional module types are as below:

- 8-Port Fast Ethernet TP Module
- 8-Port Fast Ethernet SC Multi-Mode Fiber Module
- 8-Port Fast Ethernet SC Single-Mode Fiber Module, up to 80Km
- 8-Port Fast Ethernet ST Multi-Mode Fiber Module
- 8-Port Fast Ethernet BiDi-SC Single Fiber WDM Module, up to 60Km

8-Port Fast Ethernet TP Module fully complies with IEEE 802.3/u/x Fast Ethernet specifications. 8-Port Fast Ethernet Fiber Module is a 100Mbps Ethernet port that fully complies with all IEEE 802.3u and 100Base-FX standards.

8-Port Fast Ethernet BiDi-SC Single Fiber WDM Module is designed with an optic Wavelength Division Multiplexing (WDM) technology that transports bi-directional full duplex signal over a single-strand fiber.

2. Checklist

Before you start installing the Module, verify that the package contains the following:

- The Module
- This User's Manual

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.



Fig. 1 Front View of 8-Port Fast Ethernet TP Module



Fig. 2 Front View of 8-Port Fast Ethernet SC MM Fiber Module



Fig. 3 Front View of 8-Port Fast Ethernet SC SM Fiber Module



Fig. 4 Front View of 8-Port Fast Ethernet ST MM Fiber Module



Fig. 5 Front View of 8-Port Fast Ethernet BiDi-SC Single Fiber WDM Module

3. Installing optional Modules to the
Managed Switch

The managed switch has 3 optional slots for high-speed connection expansion.

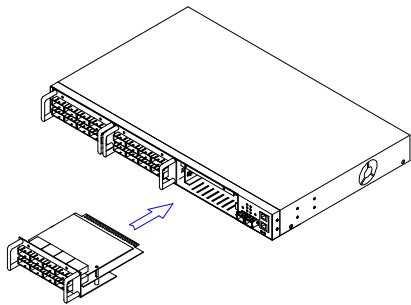


Fig. 6 Installation of optional modules

To connect the module to the chassis:

Note: The optional modules are hot-swappable.

- ⇒ Unscrew and remove the vacant slot dummy panel
- ⇒ Verify that the module is the right model and conforms to the chassis
- ⇒ Slide the module along two guides in slot and fasten the thumb knob, and be sure that the module is properly seated against the slot socket/connector
- ⇒ Install the media cable for network connection
- ⇒ Repeat the above steps, as needed, for each module to be installed into slot(s)

4. Fiber Transceiver Description

100Base-FX 1310nm Fiber Module Models	
* ST/SC multi-mode 2Km	Option
SC.20/40/60/80Km single-mode	Default (20Km)
**VF-45 multi-mode 2Km	**
**MT-RJ multi-mode 2Km, single-mode 15Km	**

*: SC multi-mode 2Km model is option

***: VF-45, MT-RJ models are available upon request

100Base-FX Single Fiber WDM Module		
Mode	TX, RX Wavelength	
BS3.xx	Single-Mode Type 2	TX(Transmit) 1310nm
		RX(Receive) 1550nm
BS5.xx	Single-Mode Type 1	TX(Transmit) 1550nm
		RX(Receive) 1310nm

Note: BS3.xx and BS5.xx must be installed in pairs, i.e. install BS3.20 at one end and BS5.20 at the other end.

5. Cabling requirements for 10/100Mbps
TP Ports

To help ensure a successful installation, you must observe the following cabling parameter. Violating these rules can render the LAN to work poorly.

- ⇒ Fast Ethernet 10/100 NWay TP network connection
 - Category 5 UTP cable and up to 100 meters

6. Cabling requirements for 100FX Module

To help ensure a successful installation, you must observe the following cabling parameter. Violating these rules can render the LAN to work poorly.

100Base-FX 1310nm Fiber Module Models	SC.20/40/60/80Km single mode		
	ST/SC multi-mode 2Km		
	VF-45 multi-mode 2Km		
	MT-RJ multi-mode 2Km, single-mode 15Km		
100Base-FX Single Fiber WDM Module	BS3.20/40/60	Single-Mode	TX(Transmit) 1310nm
		*20Km	RX(Receive) 1550nm
	BS5.20/40/60	Single-Mode	TX(Transmit) 1550nm
		*20Km	RX(Receive) 1310nm

*: Default module

7. LED Description

LED	Color	Function
8-Port Fast Ethernet TP Module LED		
LNK	Green	Lit when connection with remote device is good Off when cable connection is not good
ACT/ FDX/ SPD	Amber	a. LEDSET set on ACT (active) mode: Blinks when any traffic is present b. LEDSET set on FDX (full-duplex) mode: Lit when full-duplex mode is active Blinks when any collision is present c. LEDSET set on SPD (speed) mode: Lit when 100Mbps speed is active Off when 10Mbps speed is active
8-Port Fast Ethernet Fiber Module LED		
LNK	Green	Lit when connection with remote device is good Off when cable connection is not good
ACT/ FDX/ SPD	Green	a. LEDSET set on ACT (active) mode: Blinks when any traffic is present b. LEDSET set on FDX (full-duplex) mode: Lit when full-duplex mode is active Blinks when any collision is present c. LEDSET set on SPD (speed) mode: Lit when 100Mbps speed is active Off when cable connection is not good

8. Technical Specifications

Fiber Connector:

100Base-FX:

1310nm ST, SC, MT-RJ, VF-45 multi-mode
1310nm SC, BiDi, MT-RJ single-mode

100Base-FX Single Fiber:

BS3.20/40/60	Single-Mode SC *20Km	TX(Transmit) 1310nm RX(Receive) 1550nm
	Single-Mode SC *20Km	TX(Transmit) 1550nm RX(Receive) 1310nm

* : Default module

Standards:

IEEE802.3/802.3u
IEEE802.3x and 802.3ab
100Mbps Ethernet 100Base-FX

Transmission Speed and Mode:

10/100Mbps for TP(full/half duplex)
100Mbps for Fiber(full/half duplex)

Fiber Optic Cable:

62.5/125, 50/125 μ m multi-mode
9/125 μ m single-mode

Network Interface:

Configuration	Mode	Connector	Slot
10/100Base-T Copper Module	NWay	TP (RJ-45)	3(Optional)
100Base-FX 100Mbps Fiber Module	100FDX/ HDX	*SC/ST M-M	3(Optional)
100Base-FX 100Mbps Fiber Module	100FDX/ HDX	*SC S-M	3(Optional)
100Base-FX Single Fiber WDM Module	100FDX/ HDX	*BiDi-SC S-M	3(Optional)

* : Default module

Full Forwarding/Filtering Packet Rate:

PPS (packets per second)

Forwarding Rate	Speed
148,800PPS	100Mbps
14,880PPS	10Mbps

Flow Control:

IEEE802.3x compliant for full-duplex
Backpressure flow control for half-duplex

Dagnostic LED :

Per Port LED :
10/100M TP Module : Link, ACT/FDX/SPD
100M Fiber Module : Link, ACT/FDX/SPD

Cable and Maximum Length:

TP	Cat. 5 UTP cable, up to 100m
100Base-FX SC S-M	Single-Mode Fiber, up to 20/40/60/80Km
100Base-FX WDM BiDi-SC S-M	Single Fiber, BiDi , up to 20/40/60Km

Ambient Temperature : 0° to 40°C

Humidity : 5% to 90%

Fiber Module Dimensions : 44(H) ×122(L) × 82(W) mm

TP Module Dimensions : 44(H) ×122(L) × 71(W) mm

Complies with FCC Part 15 Class A and CE Mark

Note: For connecting this device to Router, Bridge or
Switch, please refer to the corresponding device's
Technical Manual.