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**FS3-MTX / FS3-MSC**

## ***MII Module***

*10Base-T/100Base-TX / 100BASE-FX MII Module*

### **Quick Installation Guide**



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**FCC Information**

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and receiver.
- ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio / TV technician for help.

The user should not modify or change this equipment without written approval from company name. Modification could void authority to use this equipment.

For the safety reason, people should not work in a situation which RF Exposure limits be exceeded. To prevent the situation happening, people who work with the antenna should be aware of the following rules:

1. Install the antenna in a location where a distance of 6.5 cm from the antenna may be maintained.
2. While installing the antenna in the location, please do not turn on the power of wireless card.

While the device is working, please do not contact the antenna.

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**CE Mark Warning**

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**About This Manual**

MII Module FS3-MTX / FS3-MSC Quick Installation Guide is first published by Planet Technology Corp. in 1999. This Revision is issued in August , 1999. The purpose of this manual is for the setup of the product MII Module FS3-MTX / FS3-MSC.

**Revision**

MII Module FS3-MTX / FS3-MSC Quick Installation Guide  
Part No. EMQ-FS3MTX

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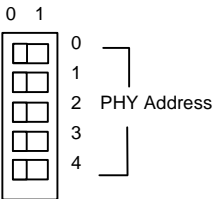
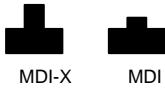
# Quick Installation

## Module Overview

| Model No.           | FS3-MTX                                | FS3-MSC                            |
|---------------------|--|------------------------------------|
| Network Protocols   | IEEE 802.3u<br>10BASE-T/<br>100BASE-TX | IEEE 802.3u<br>100BASE-FX          |
| Cable               | Category 5 cable                       | multi-mode fiber optic (MMF) cable |
| Connector           | RJ-45                                  | Duplex SC                          |
| Duplex Mode support | Half / Full                            | Half / Full                        |
| Other               | Auto-negotiation                       |                                    |

## Specification

### ◆ FS3-MTX

|                           |  |
|---------------------------|--|
| <b>MEDIA</b>              | 10BASE-T/100BASE-TX  |
| <b>PHY ADDRESS SWITCH</b> | <p>PHY address is 5-bit number. Bit 0 is LSB and bit 4 is MSB. See the following figure. The left side represents 0 and the right side represents 1. The figure shows the default value 00000 in binary.</p>  |
| <b>MDI/MDI-X BUTTON</b>   | <p><b>MDI-X</b> : Button up. It represents normal port of switches or repeaters.</p> <p><b>MDI</b> : Button down. It represents crossover port of switches or repeaters and normal port of NIC cards.</p>   |
| <b>100</b>                | 100BASE-TX Port Status LED:<br>Green: 100M Link successfully.  |
| <b>10</b>                 | 10BASE-T Port Status LED:<br>Green: 10M Link successfully.   |
| <b>FDX/COL</b>            | Duplex Mode and Collision LED:<br>Green blinking: happen collision in half duplex.<br>Continuously on(green): full duplex.   |
| <b>ACT</b>                | Port Activity LED:<br>Green blinking: network traffic.   |

## ◆ FSp3-MSC

|                           |  |
|---------------------------|--|
| <b>MEDIA</b>              | 100BASE-FX, wavelength is 1300nm   |
| <b>PHY ADDRESS SWITCH</b> | <p>PHY address is 5-bit number. Bit 0 is LSB and bit 4 is MSB. See the following figure. The left side represents 0 and the right side represents 1. The figure shows the default value 00000 in binary.</p> <p style="text-align: center;">0 1</p>                        |
| <b>HALF/FULL SWITCH</b>   | The duplex switch locates below bit 4 of PHY address as the previous figure. Switching to left side represents full duplex and switching to right side represents half duplex. Default is full duplex mode. 200Mbps full duplex can reach maximum distance 2km (6562 ft.). |
| <b>100</b>                | 100BASE-TX Port Status LED:<br>Green: 100M Link successfully.  |
| <b>FDX/COL</b>            | Duplex Mode and Collision LED:<br>Green blinking: happen collision in half duplex.<br>Continuously on(green): full duplex.   |
| <b>ACT</b>                | Port Activity LED:<br>Green blinking: network traffic.   |
| <b>CABLE</b>              | 62.5/125 microns multi-mode fiber optic cable with duplex SC connector.  |

## How to Install

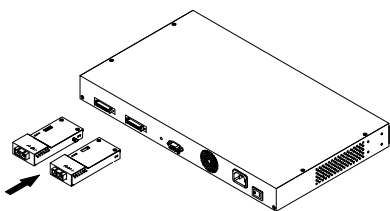
## ◆ FS3-MTX

Case 1: If your switch is FS3-1600, then

- (1) Keep the PHY Address value on default value (00000). FS3-MTX is a 10BASE-T/100BASE-TX MII module that complies fully with all IEEE 802.3u specifications. FS3-MTX can provide half duplex, full duplex and auto-negotiation modes over Category 5 cable with RJ-45 connector.
- (2) Insert FS3-MTX module into the MII interface and make sure it's connection is solid. Then it can work normally via Planet unique hot-swappable technique.

Case 2: If you use other switch or repeater with MII interface, then

- (1) Please turn off the power of the switch or repeater HUB.
- (2) Set up the desired PHY address by manually setting the PHY address switch mentioned above.
- (3) Insert FS3-MTX module into the MII interface and make sure it's connection is solid.
- (4) Turn on the power of the switch or repeater HUB, and it can work normally.



#### Connection Devices and Required Cable

| Connection Device                   | Required Cable             | Distance           |
|-------------------------------------|----------------------------|--------------------|
| Normal Port of Hubs and Switches    | Crossover Category 5 Cable | 100 meters maximum |
| Crossover Port of Hubs and Switches | Normal Category 5 Cable    |                    |
| NIC Cards                           | Normal Category 5 Cable    |                    |

#### ◆ FS3-MSC

Case 1: If your switch is FS3-1600, then

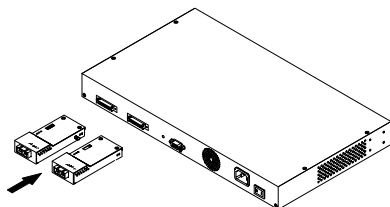
- (5) Keep the PHY Address value on default value (00000).
- (6) Set up the duplex mode in full duplex.
- (7) Insert FS3-MSC module into the MII interface and make sure it's connection is solid. Then it can work normally via Planet unique hot-swappable technique.

Case 2: If you use other switch or repeater with MII interface, then

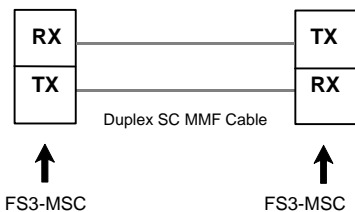
- (8) Please turn off the power of the switch or repeater HUB.
- (9) Set up the desired PHY address by manually setting the PHY address switch mentioned above.
- (10) Set up the duplex mode. If the module is connected to a repeater, please switch to half duplex mode. Otherwise, please keep the default mode (full duplex).
- (11) Insert FS3-MSC module into the MII interface and make sure it's connection is solid.
- (12) Check the duplex mode of the other port that will be connected to FS3-MSC. Make sure

that duplex modes of both sides are the same.

(13) Turn on the power of the switch or repeater HUB, and it can work normally.



### Duplex SC MMF Connection



### Connection Devices and Required Cable

| Connection Device        | Required Cable                               | Distance  |
|--------------------------|--|---|
| SC fiber port of FS3-MSC | 62.5um/125um, Multi-mode optical fiber cable | Full duplex: 2Km maximum<br>Half duplex: 412 meters maximum |