#### **Product Outline**

1000BASE-SX SFP Module and 1000BASE-LX SFP Module are SFP (Small Form-Factor Pluggable) modules to be connected to a Panasonic Ethernet Switch's SFP extension slot.

### **Specifications**

Product name	1000BASE-SX SFP Module	1000BASE-LX SFP Module
Module No.	PN54021K	PN54023K
Standards	IEEE802.3z 1000BASE-SX	IEEE802.3z 1000BASE-LX
	SFF-8472 (Diagnostic Monitoring Interface)	
Compatible cable	MMF cable	SMF, MMF cable
Fiber optic port connector type	LC connector (Duplex)	
Optical wavelength	850 nm	1310 nm
Operating voltage	DC 3.3 V	
Power consumption	0.7 W max	0.9 W max
Operating ambient temperature/humidity	0 to 50°C /20 to 80% RH (No dew condensation)	
External dimensions	9 mm (Height) x 14 mm (Width) x 57 mm (Depth) (Excluding protruding sections)	
Mass (Weight)	17 g	
Accessories	Installation Guide (this document) x 1(*) * Just the PN54021K-TH/PNS4023K-TH has 1 Installation Guide in Thai (at total of 2 guides) Protection cap of the fiber optic port (Attached to the module) x 1	

MMF: Multi Mode Fiber SMF: Single Mode Fiber

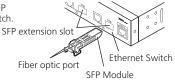
#### Installation

1. Securely connect the SFP Module to the SFP extension slot of a Panasonic Ethernet Switch.

2. Remove the protective cap of the SFP Module's fiber optic port.

3. Connect a fiber optic cable that meets the standards specified for the SFP Module.

4. Connect another SFP Module of the same model number on the opposite end



#### Removal

- 1. Unlatch the fiber optic cable and remove it from the SFP Module.
- 2. Pull down the lever of the SFP Module 90 degrees as shown in the figure to unlatch the SFP Module.
- 3 Pull out the SEP Module



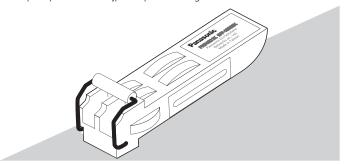
# **Panasonic**

Installation Guide 1000BASE-SX SFP Module (SFP-1000SX) 1000BASE-LX SFP Module (SFP-1000LX)

> Model No. PN54021K-TH/PN54023K-TH PN54021K-MY/PN54023K-MY PN54021K-ID/PN54023K-ID PN54021K-SG/PN54023K-SG PN54021K-NZ/PN54023K-NZ

- Thank you for purchasing our product.
- This document provides important information about safe and proper operations of this SFP Module.
- Please read the "Important Safety Instructions".
- Any problems or damages resulting from disassembly of this SFP Module by customers are not covered by the warranty.
- The instruction guide can be downloaded from the following URL.

https://panasonic.co.jp/ew/pewnw/english/datadownload/index.html



#### Panasonic Electric Works Networks Co., Ltd.

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### **Important Safety Instructions**

This chapter contains important safety instructions for preventing bodily injury and/or property damage. Please read carefully, and follow them at all times.

 Severity of bodily injury and/or property damage, which could result from incorrect use of the SFP Module, are explained below.



This symbol indicates a potential hazard that could result in serious injury or death.



This symbol indicates safety instructions.

Deviation from these instructions could lead to bodily injury and/or property damage.

The following symbols are used to classify and describe the type of instructions to be observed.



This symbol is used to alert users what they must not do.



This symbol is used to alert users what they must do.

## **MARNING**



• Do not look at the laser light.

Deviation could lead to visual impairment. (Class 1 Laser Product)

Do not disassemble and/or modify this SFP Module.
Deviation could lead to fire, electric shock, and/or equipment failure.

# **A** CAUTION



 Handle the SFP Module carefully so that fingers or hands may not be injured by its end connected to the Ethernet Switch or the SFP extension slot of the Ethernet Switch.

### Basic Instructions for the Use of This Product

- For inspection and/or repair, consult the retailer.
- Correctly and securely connect the SFP Module to the SFP extension slot of a Panasonic Ethernet Switch.
- Check the connector of the fiber optic cable for dirt and dust. If it is dirty, be sure to clean it before connecting it to the fiber optic port.
- Remove the SFP Module from the SFP extension slot before cleaning the SFP Module.
- Do not touch the metal terminal or place electrically-charged objects in the proximity of the SFP Module. Static electricity could lead to breakdown.
- Please use the SFP Module in locations where the ambient temperature is within the range of 0 to 50°C.
- Do not use the SFP Module in any condition where the specification limits are exceeded.
- Deviation could lead to malfunctions.
- Panasonic will not be liable for any damage resulting from the operation not in accordance with this document or the loss of communications, which may or may not be caused by failure and/or malfunction of this product.
- 2. The contents described in this document may be changed without prior notice.
- 3. For any question, please contact the retailer where you purchased the product.

#### Troubleshooting

If you find any problem, please take the following steps to check.

- ◆ The port LED of the Ethernet Switch to which the SFP Module connected is not lit.
  - Is the Ethernet Switch powered on?
  - Is the SFP Module securely connected to the target SFP extension slot of the Ethernet Switch?
  - Is the connected port of the Ethernet Switch enabled?
  - Is the cable correctly connected to the target port?
  - Is a conforming cable used? Is the same type of SFP Module used on the opposite end?
  - Is the equipment connected to the target port compliant with the specified standards?
  - Ensure that 100BASE-FX or 10GBASE equipment is not connected.