Industrial 16-Port 10/100TX + 2-Port Gigabit TP/SFP Combo Ethernet Switch

IFGS-1822TF

User's Manual

Trademarks

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Disclaimer

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FCC Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ISEDC Statement

CAN ICES-003(A) / NMB-003(A)

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes : (1) l'appareil nedoit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

CE Mark Warning

This device is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

PLANET Industrial 16-Port 10/100TX + 2-Port Gigabit TP/SFP Combo Ethernet Switch User's Manual

Model: IFGS-1822TF

Revision: 2.0 (Oct. 2022)

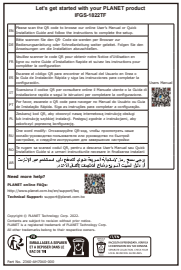
Part No.: 2360-AH7040-000

Table of Contents

1. Package Contents

Thank you for purchasing PLANET Industrial Multi-port 10/100TX Fast Ethernet Switch, IFGS-1822TF. In the following sections, the term **"Industrial Ethernet Switch"** means the IFGS-1822TF.

Open the box of the Industrial Ethernet Switch and carefully unpack it. The box should contain the following items:

Industrial Ethernet Switch x 1	Quick Sheet x 1
	
DIN-rail Kit	Wall-mount Kit
	
RJ45 Dust Cap x 18	SFP Dust Cap x 2
	

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Product Specifications

Product	IFGS-1822TF
Hardware Specifications	
Fast Ethernet Copper Ports	16 10/100BASE-TX RJ45 auto-MDI/MDI-X ports
Gigabit Ethernet Copper Ports	Two 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports (shared with Port 17 and Port 18)
SFP Slots	Two 1000BASE-SX/LX/BX SFP interfaces (shared with Port 17 and Port 18)
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount kit
Connector	Removable 6-pin terminal block for power input Pin 1/2 for Power 1, Pin 3/4 for fault alarm, Pin 5/6 for Power 2
Alarm	One relay output for power failure. Alarm relay current carry ability: 1A @ 24V DC
Dimensions (W x D x H)	66 x 107 x 152 mm
Weight	870g
Power Requirements	Dual 12~48V DC, 24V AC
Power Consumption	Max. 6.3 watts/21.4BTU (Ethernet full loading)
ESD Protection	6KV DC
Switching Specifications	
Switch Architecture	Store-and-Forward
Switch Fabric	7.2Gbps (non-blocking)
Throughput (packet per second)	5.36Mpps@ 64 bytes
Address Table	16K entries, automatic source address learning and aging
Shared Data Buffer	4Mbits
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex

Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32 (free fall) IEC60068-2-27 (shock) IEC60068-2-6 (vibration)
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab Gigabit 1000T IEEE 802.3z Gigabit SX/LX IEEE 802.3x flow control and back pressure IEEE 802.1p Class of Service IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment	
Operating Temperature	-40 ~ 75 degrees C
Storage Temperature	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)

3. Hardware Introduction

3.1 Switch Front Panel

The front panel of the **Industrial Ethernet Switch** consists of Ethernet interfaces and LED indicators

■ Front View

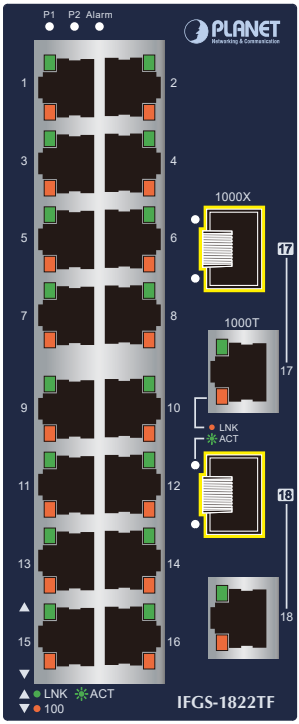


Figure 1: IFGS-1822TF Front View

3.2 LED Definition

System

LED	Color	Function
P1	Green	Lights to indicate power input 1 has power.
P2	Green	Lights to indicate power input 2 has power.
Alarm	Red	Lights to indicate either power 1 or power 2 has no power.

Per 10/100BASE-TX Port

LED	Color	Function
LNK/ ACT	Green	Lights to indicate the link through that port is successfully established.
		Blinking to indicate that the switch is actively sending or receiving data over that port.
		Off to indicate that the port is linked down.
100 Speed	Amber	Lights to indicate that the port is operating at **100Mbps**.
		Off to indicate that the port is operating at **10Mbps**.
		Off to indicate that the port is linked down.

Per Gigabit RJ45/SFP Combo Interface

LED	Color	Function
ACT	Green	Lights to indicate the link through that port is successfully established.
		Blinking to indicate that the switch is actively sending or receiving data over that port.
		Off to indicate that the port is linked down.
LNK	Amber	Lights to indicate the link through that port is successfully established.
		Blinks to indicate the port is linked with the network device that supports EEE function.
		Off to indicate that the port is linked down.

3.3 Switch Upper Panel

The upper panel of the Industrial Ethernet Switch consists of one terminal block connector within two power input and one relay ouput.

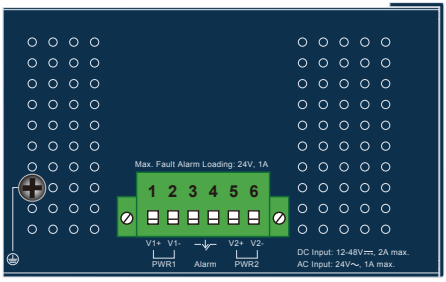


Figure 2: IFGS-1822TF Top View

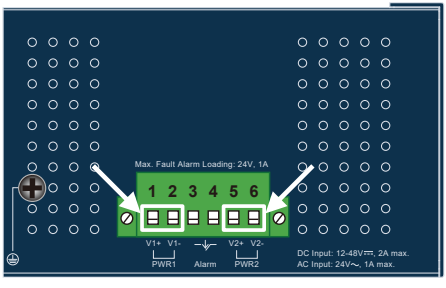
3.4 Wiring the Power Inputs

The 6-contact terminal block connector on the top panel of Industrial Ethernet Switch is used for two redundant power inputs. Please follow the steps below to insert the power wire.

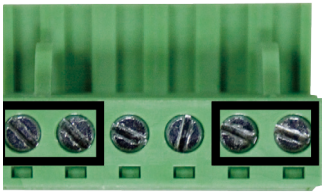
Caution

When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or contacts 5 and 6 for POWER 2.



2. Tighten the wire-clamp screws for preventing the wires from loosening.



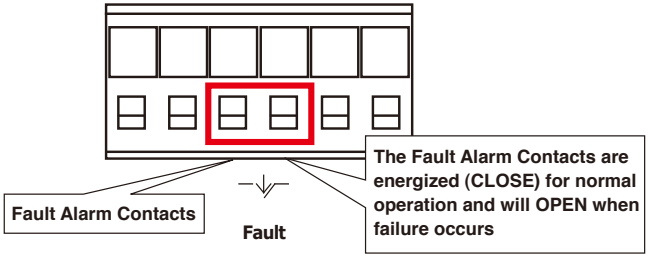
1	2	3	4	5	6
Power 1		Alarm		Power 2	
+	-			+	-

Note

1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. The power input range is 12V ~ 48V DC and supports 24V AC.
3. Use one power input when using 24V AC.

3.5 Wiring the Fault Alarm Contact

The fault alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the Industrial Ethernet Switch will detect the fault status of the power failure and then forms an open circuit. The following illustration shows an application example for wiring the fault alarm contacts.



Note

1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. Alarm relay circuit accepts up to 24V DC,1A.

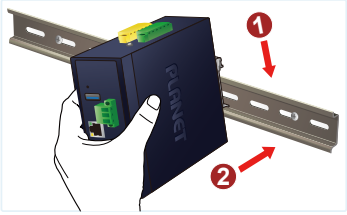
4. Installation

This section describes the functionalities of the Industrial Ethernet Switch's components and guides you to installing it on the DIN rail and wall. Please read this chapter completely before continuing.

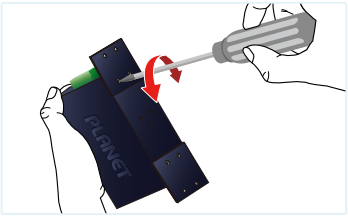
Note

This following pictures show how to install the device. However, the device in the picture is not IFGS-1822TF.

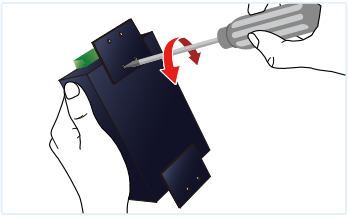
4.1 DIN-rail Mounting Installation



4.2 Wall-mount Plate Mounting

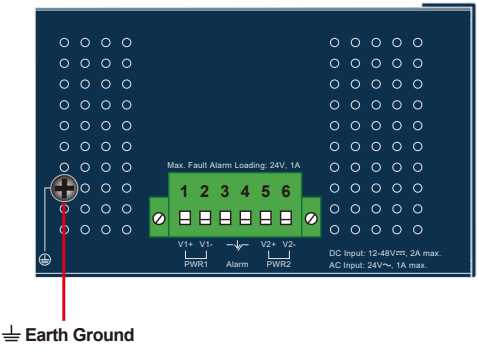


4.3 Side Wall-mount Plate Mounting



4.4 Grounding the Device

User **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device. EMD (Lightning) DAMAGE IS NOT CONVERED UNDER WARRANTY.



5. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq

Switch support team mail address:
support@planet.com.tw