

User Manual

Industrial 10 port Gigabit Switch

8-Port 10/100/1000M 802.3at PoE

2-port SFP / TP combo

v1.0

FCC MARKING

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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE MARKING

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

Introduction

This hardened design Industrial 10 port Gigabit PoE Switch complies with IEEE802.3af and IEEE802.3at, and pass many rigorous environment tests. It delivers 30Watts (Max 36Watts) power per PoE port, also generates up to 240Watts power to PD devices. The uplink 2 Gigabit TX/SFP Combo ports can extend to a multiple network connection. With its multi-purpose design, which can also be used for Din-Rail or Wall Mounted. This is an ideal unit for IP surveillance, traffic monitoring and security applications. It can tolerate -40 to +75°C in harsh environment to perform a reliable network.

Key Features

- Supports P.S.E. based on IEEE 802.3at up to 30 Watts per port
- RJ-45 port support Auto MDI/MDI-X Function
- SFP port supports 1000Base-X speed
- Store-and-Forward Switching Architecture
- Back-plane (Switching Fabric): 21Gbps
- 2M Memory Buffer
- 16K MAC Address Table
- Power Polarity Reverse Protect
- Overload Current Re-settable Fuse Present
- IP-30 Protection
- DIN Rail and Wall Mount Design
- Support Wide Operating Temperature -40°C~75°C
- PW3 is an independent Power din connection for external

Package Contents

- 1 x Industrial Switch
- 1 x User Manual
- 1 x 6 pin Terminal Block
- 2 x Wall Mounting Bracket and 4 x Screws
- 1 x Din Rail Bracket

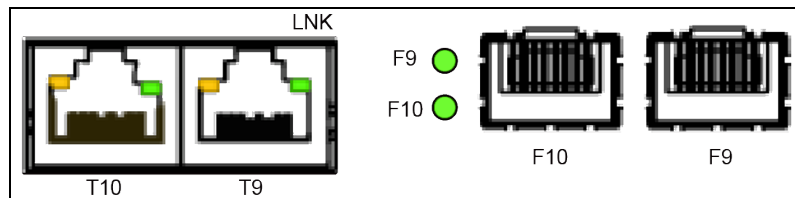
Compare the contents of the industrial switch with the standard checklist above. If any item is damaged or missing, please contact the local dealer for service.

LED Indicators

■ TX port:

LED	Color	State	Description
P1	Green	ON	Power is detected
		OFF	Power is not detected
P2	Green	ON	Power is detected
		OFF	Power is not detected
P3	Green	ON	Power is detected
		OFF	Power is not detected
RLY	Amber	ON	Connect only PW1 or PW2
		OFF	Connect both PW1 and PW2
F9	Green	ON	F9 SFP port is detected
		Flashing	F9 SFP data is transmitting/receiving
F10	Green	ON	F10 SFP port is detected
		Flashing	F10 SFP data is transmitting/receiving
TX LNK	Green	ON	TX port is detected
		Flashing	TX data is transmitting/receiving
TX PoE	Yellow	ON	PSE is activated and PD is detected
		Flashing	PSE is detecting PD

■ TX/SFP Combo port :



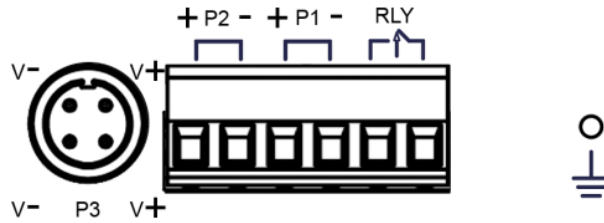
For multiple network application, this product provides two Gigabit TX/SFP Combo ports network connection. The recommend port connection combination lists as below table.

Link 1	Link 2	LED indicator (Green)	TX LNK LED (Green)
F9	F10	F9 ON, F10 ON	T9 OFF, T10 OFF
F9	T10	F9 ON, F10 OFF	T9 OFF, T10 ON
T9	F10	F9 OFF, F10 ON	T9 ON, T10 OFF
T9	T10	F9 OFF, F10 OFF	T9 ON, T10 ON

*Please Do NOT connect the F9, F10, T9 and T10 port at the same time. It will cause the uplink malfunction and unexpected damage to this device.

Power connection

This product provides 6 pin terminal block. The POE port can be operated from 48-56VDC power source. The VDC power range can be 48VDC only or lower, or wide range from 48-56VDC. Please always to make sure your input voltage is the supported voltage range for each model.



WARNING:

Any exceeded input voltage will not make this product function properly and may damage it.

To make power connection –

This device can receive 3 power inputs (P1, P2 and P3), follow the printed polarity for V1+,V1-, V2+, V2- and ground. Connect positive wire to V+, connect negative wire to V- and also connect neutral wire to the ground screw as shown.

Relay –

This relay function monitor power failure. You may use 24V@1A relay connection to your external alarm device to monitor power status. Relay function will only work with P1 and P2. When P1 and P2 are connected, the relay is in “OPEN” mode the LED RLY indicator will go OFF. When only P1 or P2 is connected, the relay is in “SHORT” mode, the LED RLY indicator will go “ON”.

Power connecting procedure:

Step1 – Pull out 6 pin terminal block

Step2 – Connect wire to V1+, V1-, V2+, V2- and also connect the earth/ground wire to the ground screw

Step3 – Plug back 6 pin terminal block to its place

*For P3 connection – Use an external industrial graded power adapter to make proper connection. Follow the priority sign V+ and V-

WARNING:

Always ground the power source to remain a clean power input. Many low-end power supplies produce too much noise which can produce PoE detection failure. To avoid this, always ground the power source to gain a clean power input.

Specification

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE802.3x Flow Control and Back Pressure, IEEE802.3af for POE IEEE802.3at for POE+
Switch Architecture	Back-plane (Switching Fabric): 26 Gbps
Data Processing	Store and Forward
Flow Control	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	10KB
MAC address Table Size	16K
Packet Buffer Size	2M
Network Connector	8 x RJ-45 10/100/1000BaseT(X) auto negotiation, Auto MDI/MDI-X function, Full/Half duplex 8 x Gigabit POE+ 802.3at/af PSE port, 30W per port 2 x 100/1000M TX/SFP Combo
Network Cable	UTP/STP Cat.5e or above Cable EIA/TIA-568 10-ohm (100m)
Protocol	CSMA/CD
Reserve polarity protection	Present
Overload current protection	Present
Power Supply	P1 and P2 for Redundant Dual DC 48V-56V P3 for Power DIN to connect external power adapter DC 48-56V For Switch only --- Power input range DC 12-56VDC For POE --- Power input range 48-56VDC
Power Consumption	5.76W@48 VDC full load, Without POE
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC, for PW1 and PW2 Relay in open circuit mode when 2 powers are connected. In short circuit mode when only one power supply is connected
POE power	Input Voltage 48VDC-56VDC. POE power per port 30watts. Maximum 36Watts with 56VDC input. Maximum total power 240Watts with 56VDC input
Removable Terminal Block	Provide 2 Redundant powers, Alarm relay contact ,6 Pin for PW1 and PW2 (PW3 is an independent Power din connection for external power adapter) Wire range: 0.34mm ² to 2.5mm ² Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm

Operating Temperature	-40°C~75°C fully tested.
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
MTBF (mean time between failure)	>500,000 hrs. (MIL-HDBK-217F) at 25°C
Housing	Rugged Metal, IP30 Protection
Case Dimension (L x W x D)	155mmx48mmx120mm (L x W x D)
Installation mounting	DIN-Rail mounting and Wall Mounting

Certificates

EN55022/24	ITE equipment
EN55011	Industrial, Scientific and Medical (ISM) equipment
Safety	IEC EN60950-1
EMC/EMS	CE, FCC, VCCI
EMI	FCC Part 15 Subpart B Class A, CE EN 55022 Class A
EN 50155 / EN 60068-2-6	Vibration
EN 50155 / EN 60068-2-27	Shock
EN 50155 / EN 60068-2-32	Free Fall

Physical Dimension

Housing Dimension (mm)

