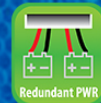# 3ISYS-ETHI-5C1F-24V

INDUSTRIAL 6-PORT UNMANAGED GIGABIT POE ETHERNET SWITCH WITH 4X10/100/1000BASE-T(X) P.S.E., 1X10/100/1000BASE-T(X) AND 1X100/1000BASE-X, SFP SOCKET, 24VDC POWER INPUTS

FEATURES

- 3ISYS-ETHI-1F4P1C-24V provide 4x10/100/1000Base-T(X) PoE (P.S.E.) ports
- Supports P.S.E. based on IEEE 802.3at standard up to 30 Watts per port
- Supports jumbo frame up to 9KBytes
- Support dual wide range 24~36VDC power inputs for power redundancy
- SFP port supports 100Base-FX and 1000Base-X speed
- Supports auto-negotiation and auto-MDI/MDI-X
- Supports store and forward transmission
- Supports flow control
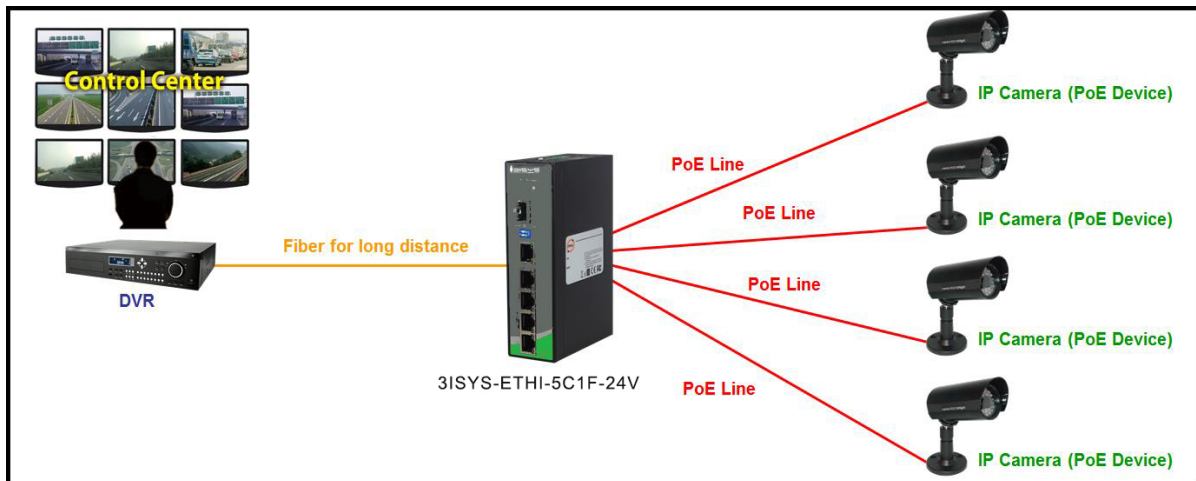- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

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PRODUCT OVERVIEW

3ISYS-ETHI-5C1F-24V is an unmanaged PoE Ethernet switch with P.S.E. function.   3ISYS-ETHI-5C1F -24V supports Power over Ethernet, a system to transmit electrical power, along with data, to remote devices over standard twisted-pair cable in an Ethernet network.   3ISYS-ETHI-5C1F-24Vhas 4x10/100/1000Base-T(X) P.S.E. (Power Sourcing Equipment) ports, 1 additional Gigabit port, and 1x100/1000Base-X SFP port.   The SFP port optical network speed can be set by changing the settings of the DIP-Switch below. 3ISYS-ETHI-5C1F-24Vsupports wide range 24~36VDC power inputs and generates 50VDC P.S.E. power output per port. P.S.E. is a device (switch or hub for instance) that will provide power in a PoE setup.   The wide operating temperature range from -40oC to 60oC can satisfy most of operating environment. Therefore, the switch is one of the most reliable choices for PoE Ethernet application.

Implementation

3ISYS-ETHI-5C1F -24V can be used in connecting several PoE P.D. Ethernet devices like IP-Camera or other Ethernet devices. In addition, there are two different power inputs at terminal block to avoid interruption caused by power down. When the primary DC power input fails, the backup power input will take over immediately to guarantee a non-stop operation.

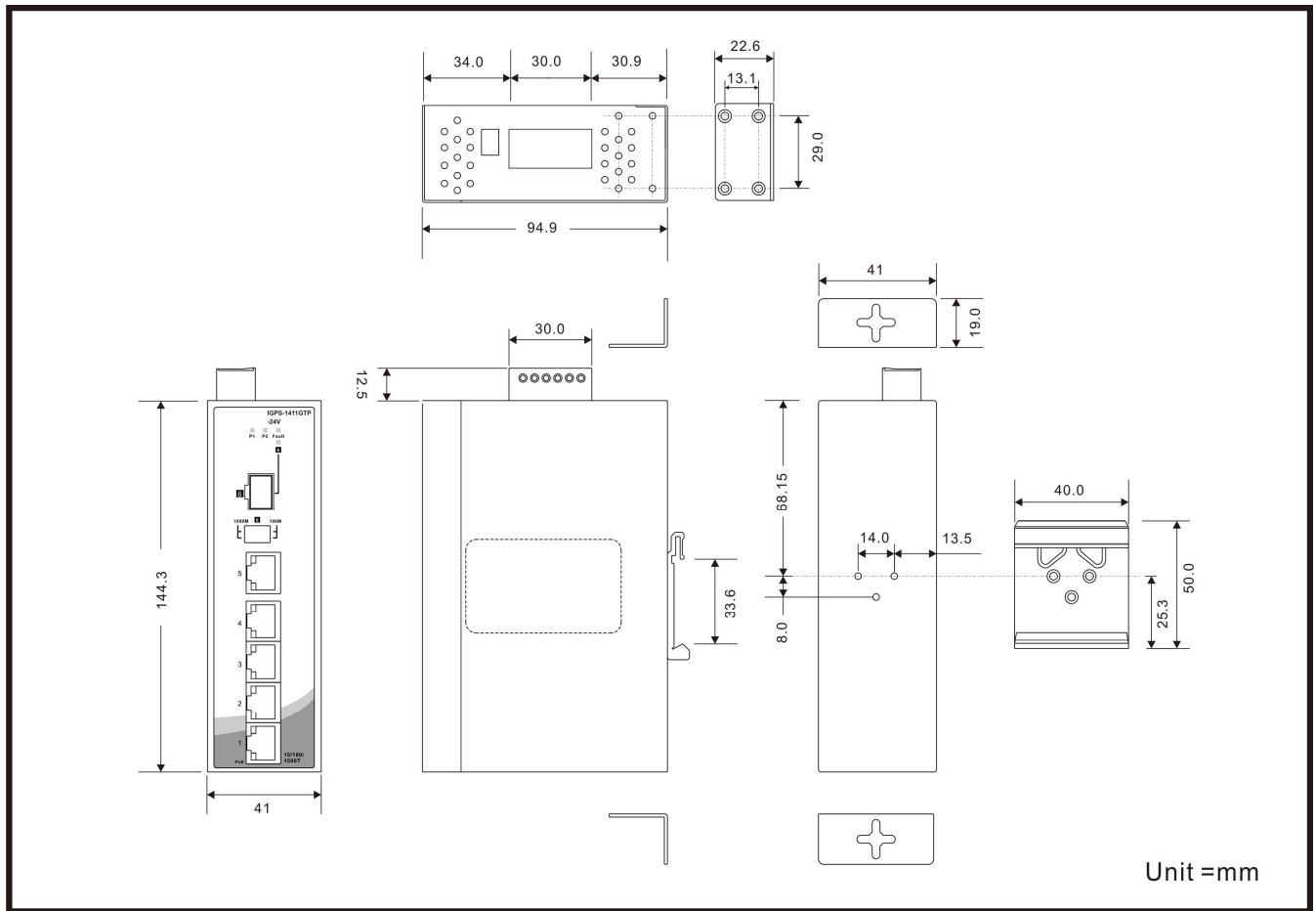**Connections of Ethernet devices**

PoE Pin Definition

l   10/100Base-T(X) P.S.E. RJ-45 port

RJ-45 Pin Definition	
Pin No.	Description
#1	TD+ with PoE Power input +
#2	TD- with PoE Power input +
#3	RD+ with PoE Power input -
#6	RD- with PoE Power input -

l   1000Base-T P.S.E. RJ-45 port

RJ-45 Pin Definition	
Pin No.	Description
#1	BI_DA+ with PoE Power input +
#2	BI_DA- with PoE Power input +
#3	BI_DB+ with PoE Power input -
#4	BI_DC+
#5	BI_DC-
#6	BI_DB- with PoE Power input -
#7	BI_DD+
#8	BI_DD-

Dimension

Unit =mm

Specifications

3ISYS Switch Model	3ISYS-ETHI-5C1F-24V
Physical Ports	
100/1000Base-X SFP port	**1**
10/100/1000Base-T(X) Ports in RJ45 with P.S.E. Auto MDI/MDIX	**4**
10/100/1000Base-T(X) Port in RJ45 Auto MDI/MDIX	**1**
Technology	
Ethernet Standards	- IEEE 802.3 for 10Base-T - IEEE 802.3u for 100Base-TX - IEEE 802.3ab for 1000Base-T - IEEE 802.3z for 1000Base-X - IEEE 802.3x for Flow control - IEEE 802.3at PoE specification (up to 30 Watts per port for P.S.E.)
MAC Table	1K MAC addresses
Processing	Store-and-Forward
Jumbo Frame	Up to 9KBytes
LED indicators	
Power indicator	Green : Power LED x 2
Fault indicator	Amber : Indicate PWR1 or PWR2 failure
10/100/1000Base-T(X) RJ45 port indicator and PoE indicator (P1 ~ P4)	Green for port Link/Act. Green for power injected.
10/100/1000Base-T(X) RJ45 port indicator (P5)	Green for port Link/Act. Amber for 100Mbps indicator
100/1000Base-X SFP port indicator	Green for port Link/Act.
SFP Speed DIP-Switch	
DIP-Switch 1/2	DIP-Switch 1 (ON) and DIP-Switch 2 (ON) : SFP speed setting to 100Mbps

	DIP-Switch 1 (OFF) and DIP-Switch 2 (OFF) : SFP speed setting to 1000Mbps
Relay Output DIP-Switch	
DIP-Switch 1	Power-1 failed warning : (ON) enable, (OFF) disable
DIP-Switch 2	Power-2 failed warning : (ON) enable, (OFF) disable
Fault contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Redundant Input power	Dual DC inputs. 24~36VDC on 6-pin terminal block.
Power consumption (Typ.)	6.5 Watts (power device not included)
Overload current protection	Present
Reverse polarity protection	NOT Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	41 (W) x 94.9 (D) x 144.3(H) mm
Weight (g)	550 g
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 60°C (-40 to 140°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
Warranty	1 year

Ordering Information

3ISYS®-AAAA-C-F

Module Identifier	Number of 10/100/1000Base-T(X) Ports	Number of P.S.E. with10/100/1000Base-T(X) Ports	Number of 100/1000Base-X SFP port
Industrial Ethernet, ETHI	1	4	1

Items Included

- **3ISYS-ETHI-5C1F-24V x 1**
- **Quick Installation Guide x 1**
- **Din-Rail Kit x 1**
- **Wall-Mount Kit x 1**

Accessories

- **3ISYS-FTX : 100Mbps SFP optical transceiver**
- **3ISYS-PWR-45-12/24, 45 Watts DIN-Rail power supply**
- **3ISYS-PWR-120-12/24, 120 Watts DIN-Rail power supply**
- **3ISYS-FC : 1Gbps SFP optical transceiver**
- **3ISYS-PWR-75-12/24, 75 Watts DIN-Rail**

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All specifications are subject to change without further
notice. All features with * mark will be available by
firmware upgrade.