ORing

IPS-1042FA Series

Industrial 6-port slim type unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX

Features

➢ IPS-1042FA series provide 4x10/100Base-T(X) PoE(P.S.E.) and 2x100Base-FX single/multi-mode fiber ports
➢ Supports IEEE 802.3at compliant 30Watts PoE per port
➢ Support auto-negotiation and auto-MDI/MDI-X
➢ Support store and forward transmission
➢ Support flow control
➢ Support surge protection technology
➢ Warning system by relay output
➢ Slim type rigid IP-30 housing design
➢ DIN-Rail and wall mounting enabled

G Full | Redundant PWR | PoE | Slim Type | -40~75°C Temperature | ROHS | CE | FC

Introduction

   IPS-1042FA series are unmanaged PoE Ethernet switches with 4 x 10/100Base-T(X) P.S.E. and 2x100Base-FX ports. IPS-1042FA series 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.   IPS-1042FA series has 4X10/100Base-T(X) P.S.E. (Power Sourcing Equipment) ports.   P.S.E. is a device (switch or hub for instance) that will provide power in a PoE setup.   IPS-1042FA series support redundant power inputs, configurable relay output alarm and rigid IP-30 housing.   In addition, the wide operating temperature range from -40 to 75°C can satisfy most of operating environment.

Practical Operation

   IPS-1042FA series can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches.   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

Dimension
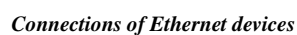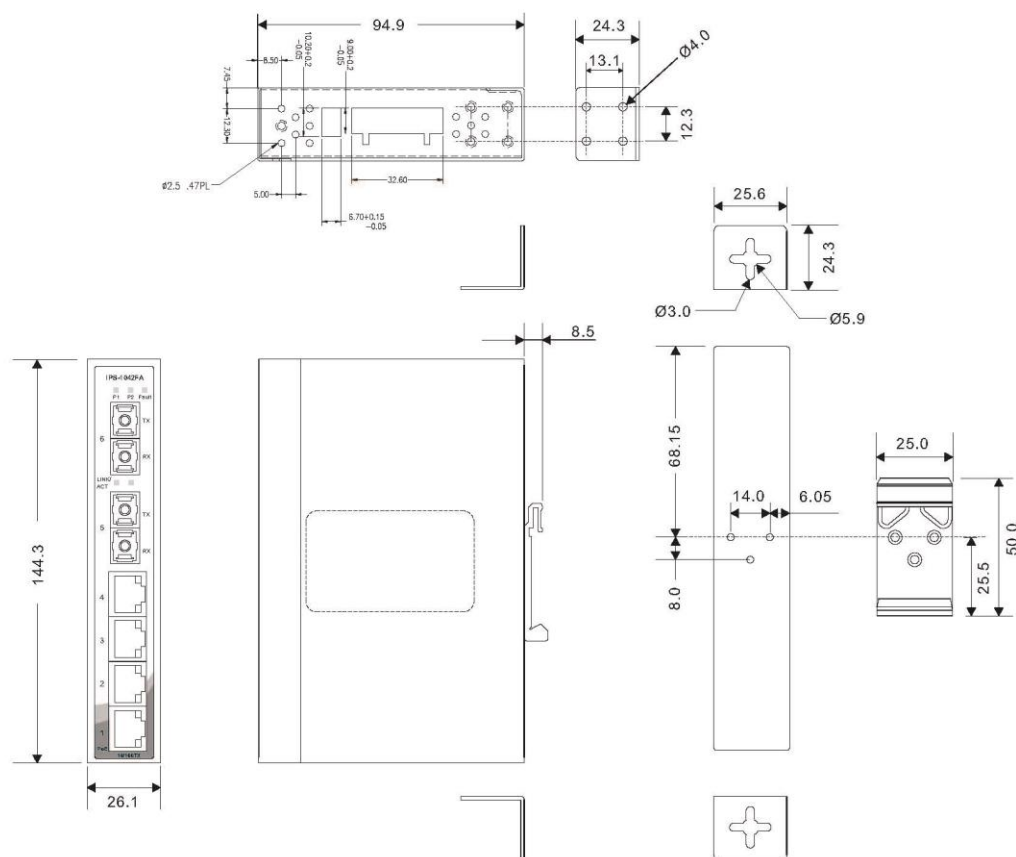
PoE Pin Definition

● 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 -

Specifications

ORing Switch Model		IPS-1042FA-MM-SC	IPS-1042FA-SS-SC
Physical Ports			
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX with P.S.E.		4	
Fiber Ports Specification	Fiber Ports Number	2	2
	Fiber Ports standard	100Base-FX	100Base-FX
	Fiber Mode	Multi-mode	Single-mode
	Fiber Diameter (µm)	62.5/125 µm & 50/125 µm	9/125 µm
	Fiber Optical Connector	SC	SC
	Typical Distance (Km)	2 Km	30 Km
	Wavelength (nm)	1310 nm	1310 nm
	Max. Output Optical Power (dbm)	-14 dbm	-8 dbm
	Min. Output Optical Power (dbm)	-23.5 dbm	-15 dbm
	Max. Input Optical Power (Saturation)	0 dbm	0 dbm
	Min. Input Optical Power (Sensitivity)	-31 dbm	-34 dbm
	Link Budget (db)	7.5 db	19 db
Technology			
Ethernet Standards		IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-T(X) and 100Base-FX, IEEE 802.3x for Flow control IEEE 802.3at PoE specification	
MAC Table		1K MAC addresses	
Processing		Store-and-Forward	
Switch Latency		<7us	
Switch Bandwidth		1.2Gbps	
Packet buffer size		448K bits	
LED indicators			
Power Indicator		Green : Power LED x 2	
Fault Indicator		Amber : Indicate PWR1 or PWR2 failure	
10/100Base-T(X) RJ45 Port Indicator		Upper for Lick/Act indicator, Green for port Link/Act. Lower for PoE indicator, Green for PoE power injected.	
100Base-FX Fiber Port Indicator		Green for port Link/Act.	
Fault contact			
Relay		Relay output to carry capacity of 1A at 24VDC	
Power			

Redundant Input Power	Dual DC inputs. 50~57VDC on 6-pin terminal block.	
Power Consumption (Typ.)	4 Watts (power consumption of P.S.E. is not included)	4 Watts (power consumption of P.S.E. is not included)
PoE power budget	120W	
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	26.1(W) x 94.9(D) x 144.3(H) mm (1.03 x 3.74 x 5.68 inch.)	
Weight (g)	438 g	
Environmental		
Storage Temperature	-40 to 85ºC (-40 to 185ºF)	
Operating Temperature	-40 to 75ºC (-40 to 167ºF)	
Operating Humidity	5% to 95% Non-condensing	
Regulatory approvals		
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15B	
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15B class A	
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS),IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11 (DIP))	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-31	
Vibration	IEC60068-2-6	
Safety	UL 60950-1, CSA C22.2 No. 60950-1-07, EN 60950-1, IEC 60950-1	
MTBF	576828 hrs	624538 hrs
Warranty	5 years	

Note : HW version 5.0

Ordering Information

IPS-1**AA**B**CC**-**DD**-**EE**
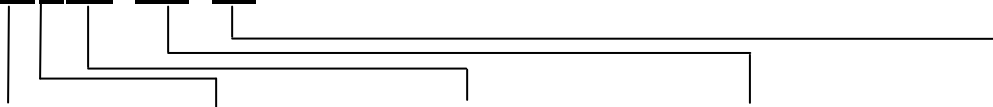
Code Definition	10/100Base-T(X) P.S.E. Port Number	Additional Port Number	Additional Port Type	Fiber Optical Mode	Fiber Optical Connector
Option	**- 04:** 4 ports	**- 2:** 2 ports	**- FA:** 100Base-FX	**- MM: Multi-mode** **- SS: Single-mode**	**- SC: SC connector**

	Model Name	Description
Available Model	**IPS-1042FA-MM-SC**	Industrial 6-port slim type unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector
	IPS-1042FA-SS-SC	Industrial 6-port slim type unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector

Packing List

- IPS-1042FA x 1
- Quick Installation Guide x 1
- Wall-mount Kit x 1
- Din-Rail Kit x 1

Optional Accessories

- DR-75-48 : 75 Watts@48VDC DIN-Rail power supply
- DR-120-48 : 120 Watts@48VDC DIN-Rail power supply
- SDR-240-48 : 240 Watts@48VDC DIN-Rail power supply
- SDR-480-48 : 480 Watts@48VDC DIN-Rail power supply

Mouser Electronics

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IPS-1042-FA-SS-SC IPS-1042-FA-MM-SC