

IPES-0104FT

4-Port 10/100TX + 1-Port 100FX w/ 4 PoE Injector

Industrial Switch

- IEEE 802.3af PoE standard
- Built-in 4port PoE injectors
- Relay contact to connect with alarm system
- Wall-mountable and DIN rail mountable













OVERVIEW

The Lantech IPES-0104FT is a 4 x 10/100TX + 1 100FX with 4-PoE-injector Industrial PoE Switch for plug-and-play installation. This slim switch is Wall-mountable or DIN rail mountable, making installation easier and flexible.

The IPES-0104FT is designed to meet with critical network environment with IP 30 enclosure and test under extensive Industrial EMI and Safety standards. It supports EFT protection for 3000VDC power and 4000VDC Ethernet ESD protection, which can reduce unstable environment damage caused by

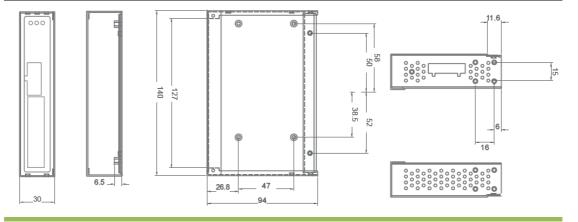
power line and Ethernet. The IPES-0104FT also supports IEEE 802.3af standard for PoE auto-detection and PoE classification resistors for hand-shaking with PD (power device), which can prevent any connected devices from burning down by sending high voltage (48V) out.

The Lantech IPES-0104FT is the best Industrial switch to connect with IP Camera, Wireless Equipments where are placed outdoor or tight space cabinet such as schools and wireless hotspots.

FEATURES & BENEFITS

- System Interface/Performance
 - · RJ-45 port support Auto MDI/MDI-X Function
 - · Embedded 4-port PoE Injector Function
 - · Store-and-Forward Switching Architecture
 - Back-plane (Switching Fabric): 1.0Gbps
 - · 1K MAC Address Table
- Provides EFT protection 3000 VDC for power line
- Supports 4000 VDC Ethernet ESD protection
- Case/Installation
 - · IP-30 Metal Housing Protection
 - · DIN Rail and Wall Mount Design
- **Power Supply**
 - · DC 48V Redundant Power
 - · Overload Current Re-settable Fuse Present
- Pass ESD Sensitivity Classification (class A) cUL (CSA/UL) Safety certified

DIMENSIONS (unit=mm)



Datasheet Version 1.0



SPECIFICATION

IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure Interest Control and Back Pressure IEEE802.3x Flow Control and Back Pressure IEEE802.3x Flow Control and Back Pressure Interest Control and Back Pressure IEEE802.3x Flow Control and Back Pressure Interest Control and In	IEEE Standards	IEEE 802.3 10Base-T Ethernet	Power Supply	48VDC (45~56VDC) Redundant Power
Ethernet IEEE802.3x Flow Control and Back Pressure IEEE802.3x Flow Control and IEEE802			Power	6.6 Watts
Switch Architecture Back-plane (Switching Fabric): 1.0Gbps Packet throughput ability (Full-Duplex): 1.488Mpps @ 64bytes 14,880pps for Ethernet port 148,800pps for Fast Ethernet port 168,800pps for Fast Ethernet port 168,800pps for Fast Ethernet port 168,800pps for Fast Ethernet port 188,800pps for F			Consumption	
Switch Architecture Back-plane (Switching Fabric): 1.0Gbps Packet throughput ability (Full-Duplex): 1.488Mpps @ 64bytes Transfer Rate 14,880pps for Ethernet port 148,800pps for Fast Ethernet port 188,800pps for Fast Ethernet port 188,80pps for Fast Ethernet port 188,80pps for		IEEE802.3x Flow Control and Back Pressure	Overload current	Present
Packet throughput ability (Full-Duplex): 1.488Mpps @64bytes Transfer Rate 14,880pps for Ethernet port 148,800pps for Fast Ethernet port 148,800ps for Fast Ethernet port 150,400		IEEE802.3af Power over Ethernet	protection	
### Transfer Rate	Switch Architecture	Back-plane (Switching Fabric): 1.0Gbps	Operating Humidity	5% ~ 95% (Non-condensing)
A		Packet throughput ability (Full-Duplex): 1.488Mpps	Operating	-10℃~60℃ (14F~140F)
148,800ps for Fast Ethernet port Temperature		@64bytes	Temperature	
Mac Address 1K MAC address table Case Dimension Metal case. IP-30, 30mm (W) x 95mm (D) x 140mm (H)	Transfer Rate	14,880pps for Ethernet port	Storage	-40℃~85℃ (-40℉~185℉)
Connectors 10/100TX: 4 x RJ-45 with auto MDI/MDI-X function; Support PoE injector function 100M fiber: 1 x SC type connector for Single-mode or Multi-mode type fiber cable PoE pin assignment RJ-45 port # 1-# 4 support IEEE 802.3af End-point, Alternative B mode. Positive (VCC+): RJ-45 pin 1, 2. Negative (VCC-): RJ-45 pin 3, 6. Data (1,2,3,6) Network Cable 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) Optical Cable Multi-mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol CSMA/CD Weight 824 g Installation DIN Rail and Wall Mount Design EMI & EMS FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN61000-4-3 (RS), CE EN61000-4-4 (EFT), CE EN61000-4-4 (CS), CE EN61000-4-11, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-6-2, CE EN61000-6-4 UL, CLL, CF/EN60950-1 Stability Testing IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration) MTBF 259356 hrs Warranty 5 years		148,800pps for Fast Ethernet port	Temperature	
Support PoE injector function 100M fiber: 1 x SC type connector for Single-mode or Multi-mode type fiber cable PoE pin assignment RJ-45 port # 1 - # 4 support IEEE 802.3af End-point, Alternative B mode. Positive (VCC+): RJ-45 pin 1, 2. Negative (VCC-): RJ-45 pin 3, 6. Data (1,2,3,6) Network Cable IDBase-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) Optical Cable Multi-mode: 50/125um-62.5/125um Single-mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol CSMA/CD LED Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)	Mac Address	1K MAC address table	Case Dimension	
100M fiber: 1 x SC type connector for Single-mode or Multi-mode type fiber cable	Connectors			` , ` , ` , ` , ` ,
Multi-mode type fiber cable RJ-45 port # 1-# 4 support IEEE 802.3af End-point, Alternative B mode. Positive (VCC+): RJ-45 pin 1, 2. Negative (VCC-): RJ-45 pin 3, 6. Data (1,2,3,6) Network Cable 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) Optical Cable Multi-mode: 50/125um				· ·
PoE pin assignment RJ-45 port # 1~# 4 support IEEE 802.3af End-point, Alternative B mode. Positive (VCC+): RJ-45 pin 1, 2. Negative (VCC-): RJ-45 pin 3, 6. Data (1,2,3,6) Network Cable 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) Optical Cable Multi-mode: 50/125um-62.5/125um Single-mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol LED Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)		,,		DIN Rail and Wall Mount Design
Alternative B mode. Positive (VCC+): RJ-45 pin 1, 2. Negative (VCC-): RJ-45 pin 3, 6. Data (1,2,3,6) Network Cable Network Cable Network Cable Data (1,2,3,6) Network Cable Data (1,2,3,6) Network Cable Data (1,2,3,6) Network Cable Data (1,2,3,6) CE EN61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-5 (Surge), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-4-8, CE EN61000-4-5 (Surge), CE EN61000-4-5 (Surge), CE EN61000-4-5 (Surge), CE EN61000-4-5 (Surge), CE EN61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-3 (RS), CE EN61000-4-5 (Surge), CE EN61000-4-3 (RS), CE EN61000-4-5 (Surge), CE EN61000-4-5 (Surge), CE EN61000-4-8, CE EN61000-4-8, CE EN61000-4-9 CE EN61000-4-9 CE EN61000-4-8, CE EN61000-4-9 CE EN61000-4-8 CE EN61000-4-9 CE EN61000-4-9 CE EN61000-4-8 CE EN61000-4-9 CE EN61		**	EMI & EMS	
Positive (VCC+): RJ-45 pin 1, 2. CE EN61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-6 (CS), CE EN61000-4-6 (CS), CE EN61000-4-6 (CS), CE EN61000-4-8 (CS), CE EN61000-4-11, CE EN61000-4-11, CE EN61000-6-2, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-4-11, CE EN61000-4-1 (ET), CE EN61000-4-10, CE EN61000-4-1, CE EN61000-4-1, CE EN61000-4-1, CE EN61000-6-2, CE EN61000-6-2	PoE pin assignment			
Negative (VCC-): RJ-45 pin 3, 6. CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-6 (CS), CE EN61000-4-6 (CS), CE EN61000-4-6 (CS), CE EN61000-4-7 (CE EN61000-4-8), CE EN61000-4-11, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-6-2, CE EN61000-6-2 (CE EN61000-6-2), CE EN61000-4-11, CE EN61000-6-2 (CE EN61000-6-2), CE EN61000-4-11, CE EN61000-6-2, CE EN61000-6-2 (CE EN61000-6-2, CE EN61000-6-2,				
Data (1,2,3,6) Data (1,2,3,6) CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m)				
Network Cable 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) CE EN61000-4-8, CE EN61000-4-11, CE EN61000-6-2, CE EN610		• , , , , , , , , , , , , , , , , , , ,		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
EIA/TIA-568 100-ohm (100m)		(, , , ,		
100Base-TX: 2-pair UTP/STP Cat. 5 cable CE EN61000-6-2, CE EN61000-6-4	Network Cable			
CE EN61000-6-4				
Optical Cable Multi-mode: 50/125um-62.5/125um Single-mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol LED Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow) Safety UL, cUL, CE/EN60950-1 Stability Testing IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-30 (Free fall), IEC60068-2-30		•		
Single-mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol CSMA/CD Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow) Stability Testing IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-32 (Free fall), IEC60068-2-32 (Free fall	Ontical Cable	, ,	Cofoty	
Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol CSMA/CD Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)	Optical Cable		,	
(Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode) Protocol CSMA/CD Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)		ŭ .	Stability Testing	, , , , , , , , , , , , , , , , , , , ,
Wavelength: 1310nm (Multi-mode/Single-mode) Protocol CSMA/CD Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)			MTDE	, ,
Protocol CSMA/CD LED Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)				
Per unit: Power 1 (Green), Power 2 (Green), Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)	Protocol	, ,	vvairanty	J years
Fault(Red) Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)	LED		<u>"</u>	
Fiber: Link/Active(Green) TX: Link/Active(Green), Full duplex/Collision (Yellow)		. , , , , , , , , , , , , , , , , , , ,		
TX: Link/Active(Green), Full duplex/Collision (Yellow)		• ,		
		` ,		
PoE: Feeding Power (Green)		PoE: Feeding Power (Green)		

ORDERING INFOMATION

- IPES-0104FT (SC/MM 2km)......P/N: 8350-911
 - 4 10/100TX + 1 100FX (SC, MM 2km) w/ 4 PoE Injector Industrial Switch
- IPES-0104FT (SC/SM 30km)......P/N: 8350-912

4 10/100TX + 1 100FX (SC, SM 30km) w/ 4 PoE Injector Industrial Switch

OPTIONAL ACCESSORIES

DIN Rail Power

■ AD1240-48S 48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20℃~50℃ 48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20℃~50℃

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