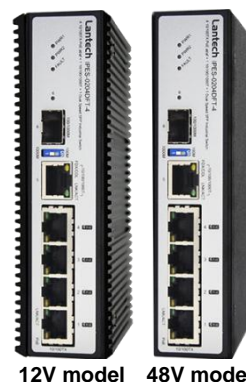# IPES-0204DFT-4

## 4-Port 10/100TX + 1-Port GigaT + 1-Port Dual Speed SFP w/ 4 PoE + Injector Industrial Switch

- *IEEE 802.3at/af PoE+ standard*
- *Built-in 4port PoE injectors up to 30W per port*
- *12V input to 48V PoE output (12V model)*
- *Relay contact to connect with alarm system*
- *Wide operating temperature range from -40°C to 75°C*

**12V model**   **48V model**

## OVERVIEW

The Lantech IPES-0204DFT-4 is a 4 x 10/100TX + 1 GigaT + 1Dual speed SFP with 4-PoE-injector Industrial PoE+ Switch feeding up to 30W/port for plug-and-play installation. This slim switch is wall-mountable** or DIN rail mountable, making installation easier and flexible.

The IPES-0204DFT-4 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 2000VDC power and 6000VDC contact ESD protection, which can reduce unstable environment damage caused by power line and Ethernet. The IPES-0204DFT-4 also supports IEEE 802.3at/af standard for PoE/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.

With voltage boost design, the IPGS-0204DFT-12V can work from 12/24V input power source and boost the voltage to 48VDC to feed the POE power over Ethernet cable for any vehicles that usually has 12/24V power source. The slim compact design is able to fit in variety of cabinets and space.

The Lantech IPES-0204DFT-4 is the best Industrial switch to connect with IP Camera, Wireless equipments where are placed outdoor or tight space cabinet such as street cabinet, wireless hotspots etc.

## 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): 2.8Gbps*
  - · *8K MAC Address Table*
- **Provides EFT protection 2000 VDC for power line**
- **Supports 6000 VDC ESD contact protection**
- **Built-in 12 to 48V DC-DC converter for PoE(12V model)**

- **Case/Installation**
  - · *IP-30 Metal Housing Protection*
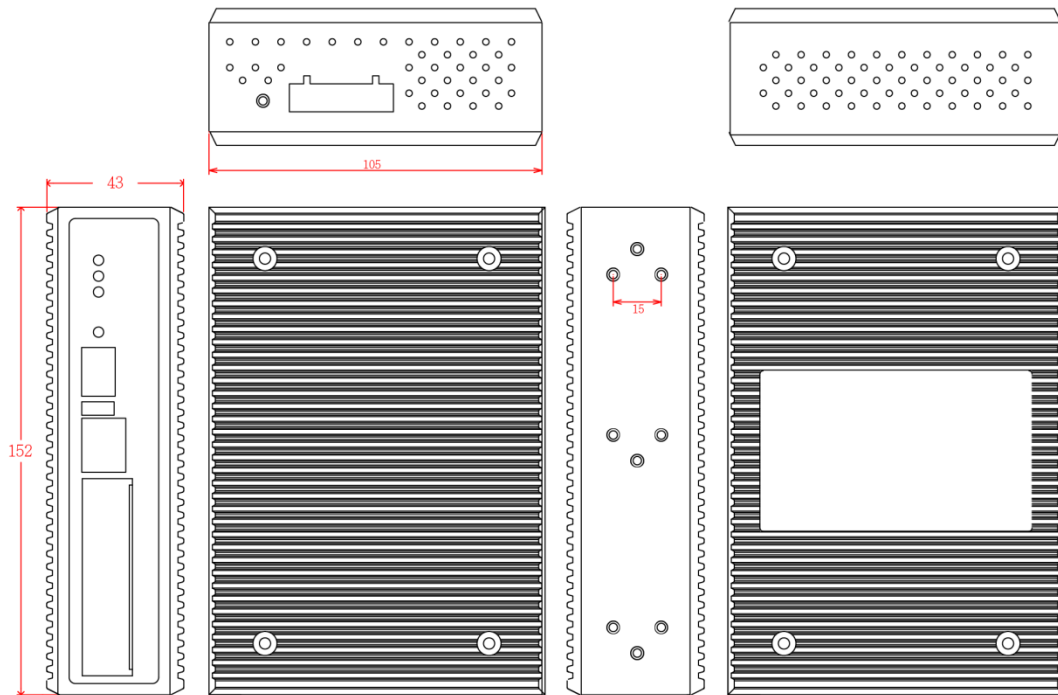  - · *DIN Rail and Wall Mount Design*
- **Power Supply**
  - · *DC 48V Redundant Power (48V model)*
  - · *DC 12V~48V Redundant power (12V model)*
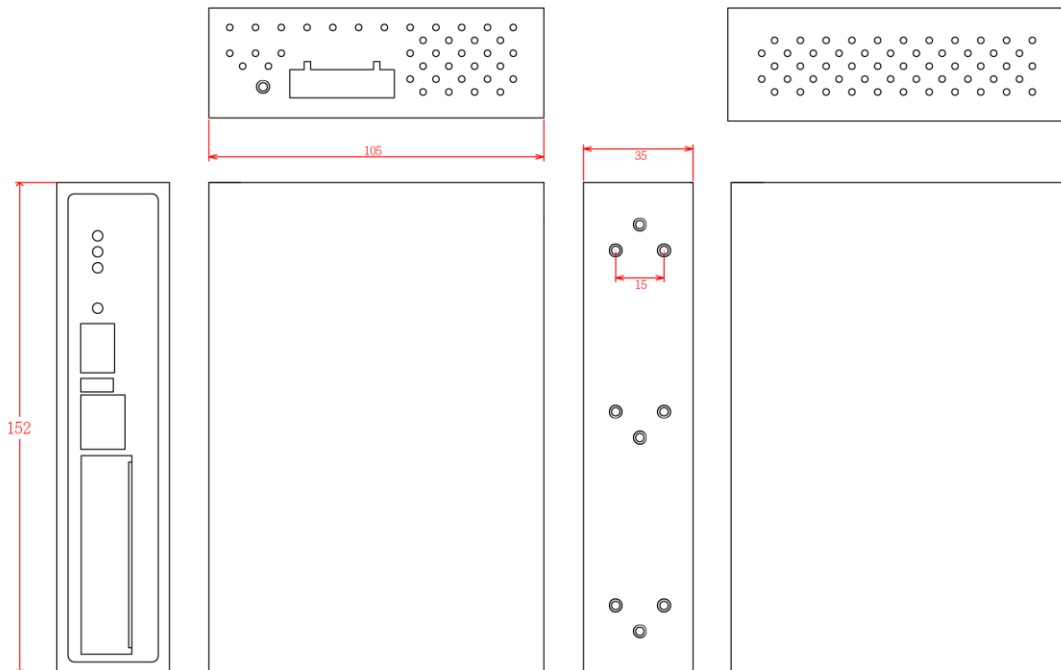  - · *Overload Current protection by fuse*
- **Pass ESD Sensitivity Classification (class A)**

## DIMENSIONS (unit=mm)

**12V mdoel**

105

43

152

15

**48V mdoel**

105

35

152

15

15

## SPECIFICATION

| IEEE Standards | IEEE 802.3 10Base-T Ethernet<br>IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet<br>IEEE802.3x Flow Control and Back Pressure<br>IEEE802.3at/af Power over Ethernet |
|---|---|
| Switch Architecture | Back-plane (Switching Fabric): 1.0Gbps<br>Packet throughput ability (Full-Duplex): 1.488Mpps @64bytes |
| Transfer Rate | 14,880pps for Ethernet port<br>148,800pps for Fast Ethernet port |
| Mac Address | 8K MAC address table |
| Connectors | 10/100TX: 4 x RJ-45 with auto MDI/MDI-X function; Support PoE+ injector function<br>10/100/1000T:1x RJ-45 with auto MDI/MDI-X function<br>100M/1000M fiber: 1 x dual speed SFP slot for Single-mode or Multi-mode type fiber cable |
| PoE pin assignment | RJ-45 port # 1~# 4 support IEEE 802.3at/af End-point, Alternative A mode.<br>Positive (VCC+): RJ-45 pin 1, 2.<br>Negative (VCC-): RJ-45 pin 3, 6.<br>Data (1,2,3,6 ) |
| Network Cable | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5, 6 cable EIA/TIA-568 100-ohm (100m)<br>100Base-TX: 2-pair UTP/STP Cat. 5, 6 cable EIA/TIA-568 100-ohm (100m) |
| Optical Cable | Multi-mode: 50/125um~62.5/125um<br>Single-mode: 9/125um<br>Available distance: 2km (Multi-mode)/30km (Single-mode)<br>Wavelength: 1310nm (Multi-mode/Single-mode) |
| Protocol | CSMA/CD |
| LED | Per unit: Power 1 (Green), Power 2 (Green), Fault(Amber)<br>Fiber: Link/Active(Green)<br>TX: Link/Active(Green), PoE: Feeding Power (Amber) |

| Power Supply | Redundant PoE 48VDC (44~56VDC) :48V model<br>Redundant PoE 12VDC ( 9.5~56VDC) |
|---|---|
| Power Consumption | 4.1 Watts max. |
| PoE budget | 120W (48V model) ; 80W (12V model) |
| Overload current protection | Present |
| Operating Humidity | 5% ~ 95% (Non-condensing) |
| Operating Temperature | -40°C~75°C / -40°F~167°F |
| Storage Temperature | -40°C~85°C /-40°F~185°F |
| Case Dimension | Metal case. IP-30,<br>12V model: 43(W) x 105(D) x 152(H) mm<br>48V model: 35(W) x 105(D) x 152(H) mm |
| Weight | 660g |
| Installation | DIN Rail and Wall Mount Design |
| EMI & EMS | FCC Class A,<br>CE EN61000-4-2 (ESD),<br>CE EN61000-4-3 (RS),<br>CE EN61000-4-4 (EFT),<br>CE EN61000-4-5 (Surge),<br>CE EN61000-4-6 (CS),<br>CE EN61000-4-8,<br>CE EN61000-4-11,<br>CE EN61000-6-2,<br>CE EN61000-6-4 |
| Stability Testing | IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration) |
| MTBF | N/A |
| Warranty | 5 years |

## ORDERING INFOMATION

- **IPES-0204DFT-4-48V..………......P/N: 8351-915**
  4 10/100TX + 1 GigaT + 1 Dual speed SFP w/ 4 PoE+ Injector Industrial Switch
  -40°C to 75°C ; DC 44~56V dual input
- **IPES-0204DFT-4-12V………........P/N:8351-916**
  4 10/100TX + 1 GigaT + 1 Dual speed SFP w/ 4 PoE+ Injector Industrial Switch
  -40°C to 75°C ; DC 9.5~56VDC

## 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°C~50°C
  (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **AD1120-48F**   48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C
  (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

Datasheet  Version  1.0