

# ES3002-4P-4T

8-Port Unmanaged Ethernet Switch with 4-Port PoE-at Injector



# STANDARD FEATURES

#### RJ-45 Ports

- Auto MDI/MDI-X
- Auto-negotiation
- 4-ports 10/100M/1000Mbps Ethernet (PoE-at)
- 4-ports 10/100/1000Mbps Ethernet (non-PoE)

#### **High Performance Architecture**

- Unmanaged plug and play installation requires no programming
- Store-and-Forward switching architecture with wire-speed filtering and forwarding rates
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex)
- Integrated address-lookup engine supports 1K absolute MAC addresses
- Supports CSMA/CD Protocol
- Automatic source-address learning and aging
- Support to handle Jumbo Packets (9K Bytes ES3001-4P/4T only)

#### Power over Ethernet (PoE)

- Up to 4 IEEE 802.3af devices powered
- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Supports up to 15.4 watts (13.75w per port @ full budget)
- Auto detect powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 328 ft. (100m)
- 55 watts total power budget

#### **Designed for Efficient Operation**

- Metal enclosure
- Built-in 65 watt power supply
- Advanced Green Networking technologies:
  - -Idle Mode Link Down Power Saving
  - -Intelligent Power Scaling technology
- Fanless design
- 0~50°C operating environment

#### Warranty

• 3-year limited warranty

# OVERVIEW

The IFS® line of economy series (ES) Ethernet switches provide Gigabit Ethernet (10/100/1000Mbps) transmission combined with a built-in 4-Port PoE injector providing up to 15.4w per port with a total PoE power budget of 55 watts.

The IFS ES3002-4P-4T is a cost-effective switch for a small IP video network. This switch is designed to provide non-blocking wirespeed performance and easy plug-and-play installation for desktop deployment of IP cameras, IP intercom, wireless access points (WAP) and other Ethernet applications.

This switch utilizes an internal power supply versus an external wallmount transformer thus providing more reliable PoE performance and a higher total PoE power budget. In addition, the ES3002-4P-4T utilizes energy saving technology that reduces energy usage.

The ES3002-4P-1T incorporates two advanced Green Networking technologies:

- The Idle Mode Link Down Power Saving feature complies with the IEEE 802.3az Energy Efficient Ethernet (EEE) standard to automatically lower power for a given port when it is not connected.
- The Intelligent Power Scaling Technology actively determines the appropriate power level based on the cable length.

These two green features can reduce overall power consumption, which makes a significant contribution to energy savings.

ES3002-4P-4T

8-Port Unmanaged Ethernet Switches with 4-Port PoE-at Injector

### **Specifications**

Regulation

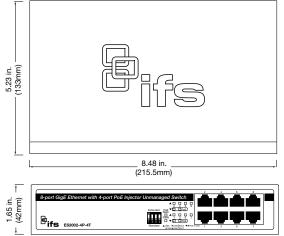
| RJ45 Ports                              |  |
|---|--|
| 10/100Base-TX Connectors                | RJ-45 (4) PoE and (4) non-PoE (8 total)  |
| Port Configuration                      | Auto MDI/MDI-X   |
| Port Speed                              | Auto-negotiate   |
| Energy-saving Technology                | Link down power saving<br>Intelligently scales power based on cable length   |
| PoE                                     |  |
| PoE Standard                            | IEEE 802.3at Power over Ethernet / PSE   |
| PoE Power Supply Type                   | End-Span   |
| PoE Power Output Per Port               | 53VDC / 600 mA (30w max.)  |
| Powered Devices (PD)<br>Class 1, 2 or 3 | 4  |
| Powered Devices (PD)<br>Class 4         | 2  |
| Power Pin Assignment                    | 1/2(+), 3/6(-)   |
| Total PoE Power Budget                  | 60 watts   |
| Switch Performance                      |  |
| Switch Architecture                     | Store-and-Forward  |
| Switch Fabric (non-blocking)            | 16Gbps   |
| Throughput (Packet per second)          | 11.9Mpps@64bytes   |
| Address Table                           | 4K entries   |
| Maximum Frame Size                      | 9K Bytes   |
| Flow Control                            | Back pressure for Half-Duplex,<br>IEEE 802.3x PAUSE Frame for Full-Duplex  |
| LED Indicators                          | · · · · ·  |
| Power                                   | Power On   |
| Ports 1-8                               | LNK/ACT  |
| Ports 1-4                               | PoE In-use, LNK/ACT  |
| PoE Max                                 | On when Max PoE power is reached   |
| Electrical & Mechanical                 |  |
| Supply Voltage                          | AC 100 to 240V, 50/60Hz, 1.5A  |
| Power Consumption                       | 65 watts max./221 BTU max.   |
| Enclosure                               | Metal  |
| Dimensions (in/mm) (W x D x H)          | 8.48 x 5.23 x 1.65 in. (215.5 x 133 x 42mm)  |
| Weight (lbs./kg)                        | 1.96 lbs./0.89kg   |
| Environmental                           |  |
| MTBF                                    | > 100,000 Hrs @ 25°C   |
| Operating Temperature                   | 0°C~50°C   |
| Storage Temperature                     | -40°C~70°C   |
| Relative Humidity                       | 0%~95% (non-condensing)  |
| Standards Compliance                    |  |
|   | IEEE 802.3 10Base-T  |
| IEEE Standards                          | IEEE 802.3 i 10Base-TX<br>IEEE 802.3ab Gigabit Ethernet (ES3001 only)<br>IEEE 802.3x Flow Control and Back pressure<br>IEEE 802.3-at PoE (15.4w) |
| EIA/TIA-568 Standards                   | 100-ohm UTP Cat. 5 or better (100meters, max.  |
|   |  |

FCC Part 15 Class A, CE

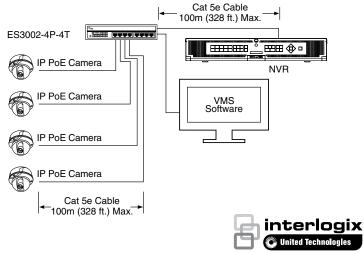
# **Ordering Information**

| ES3002-4P-4T            | 8-Port Unmanaged Gigabit Ethernet Switch w/4-Port<br>PoE-af Injector |
|-------------------------|--|
| Included<br>Accessories | User's Manual, AC Power Cord   |

## **Dimensional Diagram**



# **Typical Application**



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Specifications subject to change without notice.

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