

## JetNet 4005f

### Industrial 5-port Web-Managed Ethernet Switch

- Redundant Ethernet Super Ring
- Supports VLAN / QoS / IGMP Snooping
- Supports online Port Mirroring and IP Security
- Web-based configuration
- Alarm Relay Output for port break and power failure
- Redundant DC power inputs
- Rigid aluminum case design complies with IP30 standard
- DIN-Rail / Wall-Mounting / Desktop installation
- Supports one Single / Multi-mode fiber port



#### Overview

JetNet 4005f is a 5-port Web-Managed Industrial Switch, which supports all powerful features for industrial Ethernet applications, such as Redundant Super Ring, port VLAN, Quality of Service, IGMP (Internet Group Management Protocol) Snooping and failure alarm by relay output. JetNet 4005f has four 10/100Base-TX ports and one 100Base-FX port for extending communication distance from

2,000 meters (multi-mode fiber) to 30 km (single-mode fiber). JetNet 4005f also has redundant DC power inputs for power supply redundancy. With the web-based configuration interface, JetNet 4005f ensures an easy installation and management of your switches. The IP30 robust aluminum case and 300,000 hours of MTBF make JetNet 4005f the best solution to enhance your industrial networking automation.

#### Super Ring-Recovery Time < 300ms

One of the main topics in Industrial Automation field is to ensure your system will run non-stop. A minor failure in the communication process may cause the whole system to break down. As a result, you might suffer from substantial damage in terms of extra time and monetary losses. JetNet 4000 Series Switches are your ultimate solution. With Super Ring (Self-healing Redundant) technology, JetNet 4000 provides you with a self-recovery mechanism. If any segment of your

primary communication path is broken or disconnected, Super Ring technology allows JetNet 4000 to self-reconfigure and to provide a redundant path in the network. With its ultra fast recovery time, which is less than 300ms, your mission-critical applications are protected from any network interruptions or temporary malfunctions. With the recovery time that fast, you won't even notice a network failure.

#### Advanced Management Features

In addition to Super Ring, JetNet 4000 provides more advanced features for management. JetNet 4000 supports QoS, Quality of Service, which classifies the importance of each packet and prioritizes the tasks. Ethernet packets, such as control messages, will be dealt with first, and then low priority packets, such as collected data. QoS provides ideal solutions for real-time systems.

With port-based VLAN function, devices are put into logical subgroups within a local area network regardless of the physical LAN segment they are attached. Devices from a

different VLAN cannot communicate or access your LAN, providing extra security to the entire network. VLAN function also can restrain the traffic within a VLAN and thus improve network performance in a large scale.

JetNet 4000 IGMP Snooping can restrain multicasting traffic in a switched network. By filtering the multicasting traffic and sorting it to the corresponding group of devices, JetNet 4000 forwards messages only to the devices that are interested in the messages. It will reduce the total amount of traffic on the entire network substantially.

## Specifications

### Technology

#### Standard:

IEEE 802.3 10Base-T Ethernet  
IEEE 802.3u 100Base-TX Fast Ethernet  
IEEE 802.3x Flow Control and Back-pressure  
IEEE 802.1p class of service  
IEEE 802.1Q VLAN

**Processing:** Store and Forward architecture

**Packet Filter:** Broadcast packet filtering

### Interface

**Number of Ports:** 4 x 10/100 Base-Tx, Auto MDI/MDIX, 1 x 100 Base-Fx

#### 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:

SC (Multi Mode): 50/125um to 62.5/125um  
SC (Single Mode): 9/125um to 10/125um  
Available distance: 2km (Multi Mode) / 30km (Single Mode)  
Wavelength: 1310nm (Multi Mode/ Single Mode)

#### LED Indicators:

Per port: Link/Activity (Green), Full duplex/Collision (Green)  
Per unit: Power x 3 (Green), Fault (Red), R.M (Orange)

**Alarm:** Relay output for port break and power failure

### Redundancy

#### Network Redundancy:

Super Ring with recovery time less than 300ms  
RSTP, STP

**Power Redundancy:** Dual power inputs 24 VDC

### Management

**Protocols:** IGMP V1 & Query mode, DHCP/Client, TFTP, SNMP

#### Configuration:

Web-interface management  
Default button is provided to restore default settings

#### VLAN:

Supports Port-based VLAN and IEEE802.1Q Tag VLAN

**Quality of Service:** Four priority queues per port

**Port Mirroring:** Online traffic monitoring on selected ports

**IP Security:** IP addresses are used to define access levels

### Performance

#### Transfer Rate:

14,880 pps for Ethernet port and 148,800 pps for Fast Ethernet port

**Transfer packet size:** 64 bytes to 1522 bytes (with VLAN tag)

**MAC Address:** 2K MAC address table

**Memory Buffer:** 1Mbits

**Back-plane:** 1.0 Gbps

### Power Requirements

#### Power Supply:

Input Voltage: 24VDC(12 to 48 VDC), dual inputs  
Reverse Polarity Protection: Present

**Power Consumption:** 3.5 Watts

### Mechanical

**Installation:** DIN-Rail kit and wall mounting ears

**Casing:** IP-30 protection, aluminum case

**Dimensions:** 53 mm (W) x 135 mm (H) x 105mm (D)

### Environmental

**Operating Temperature:** -10 to 70°C (14 to 158°F)

**Operating Humidity:** 5% to 95% (Non-condensing)

**Storage Temperature:** -40 to 85°C (-40 to 185°F)

### Regulatory Approvals

**EMI:** FCC Class A, EN55022 Class A

#### EMC:

EN61000-4-2, EN61000-4-3, EN61000-4-4  
EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

**Safety:** UL, cUL, EN60950

**Shock:** IEC 60068-2-27

**Free Fall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

**MTBF:** 297,077 hours \* MIL-HDBK-217F GB (MILITARY HANDBOOK) standard

**Warranty:** Global 5 years

## Ordering Information

### JetNet 4005f-m Industrial 5-Port Web-Managed Ethernet Rail Switch with one Multi Mode 100Base-FX

Includes:

- 4 x 10/100 Base-Tx, 1 x Multi Mode 100Base-Fx Switch
- Quick Installation Guide
- Documentation CD-ROM
- Wall mounting plate and six screws

### JetNet 4005f-s Industrial 5-Port Web-Managed Ethernet Rail Switch with one Single Mode 100Base-FX

Includes:

- 4 x 10/100 Base-Tx, 1 x Single Mode 100Base-Fx Switch
- Quick Installation Guide
- Documentation CD-ROM
- Wall mounting plate and six screws