

# JetNet 3018G (Preliminary)

## Industrial 16+2G Gigabit Ethernet Switch



CE FC ~~RoHS~~

- 16 10/100TX and 2 Gigabit copper/SFP combo ports
- Auto detect Gigabit Link Media
- Flexible Gigabit Fiber Link Distance
- High performance up to 12.8Gbps non-blocking bandwidth
- Supports Auto MID/MDI-X with Flow control
- Jumbo Frame up to 9,216 Bytes
- IEEE802.1p for Quality of Service (QoS)
- Power redundancy with wide range input
- Relay Output Alarm for Gigabit uplink ports failure
- Rigid IP31 grade Aluminum Case
- -20~70°C operating temperature for hazardous environment application

- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

### Overview

The Korenix JetNet3018G is an unmanaged Industrial Switch, equipped with 16 RJ-45 10/100Mbps ports and 2 10/100/1000TX with 1000-SX SFP combo ports. The SFP ports accept all types of Gigabit SFP Transceivers, such as Gigabit SX, LX, LHX, ZX and XD for several connections and distances. The JetNet 3018G also supports Jumbo frame

transmission, up to 9216-bytes packet size, which is crucial especially while the industrial applications requesting the transmission with large size files. The JetNet 3018G adopts the rigid aluminum case, the unique Korenix-Design, which is the right option for the hazardous environments.

### The Flexible Gigabit RJ-45/SFP Combo Ports

The JetNet 3018G is equipped with two Gigabit RJ-45/SFP combo ports. Each Gigabit port combines a small form factor pluggable SFP (mini-GBIC port to accommodate 1000Base-SX or 1000Base-LX connectivity) and a RJ-45 Gigabit copper port. The switch will automatically detect the priority

of the Gigabit cable connections for each Gigabit port. The fiber SFP module with various ranges of fiber transceivers is capable to fulfill the tailor made industrial applications greatly. Moreover, Korenix equips 2 relay outputs to deliver alarms while the Gigabit RJ-45/SFP ports failing.

### High Performance and Jumbo Frame

The JetNet 3018G supports 16 Fast Ethernet ports plus 2 Gigabit uplink ports which can provide 12.8G non-blocking bandwidth and performance. The gigabit interface is used to act as the uplink path as the lower 10/100 ports have bigger uplink bandwidth. Unlike pure 10/100 High Ports Switch, the uplink ports may not easily be the bottleneck of the

transmission. Considering the industrial application requirements, the JetNet 3018G enables the Jumbo frame supported by default. The jumbo frame, which is up to 9,216 bytes, divides the large files into less packet frames. Thus, the gaps between the frames become fewer, and the packet transmitting becomes more efficiency.

## Quality of Service

The JetNet 3018G focuses on the entry level applications which allocate numerous Fast Ethernet devices and provide higher bandwidth to Gigabit Backbone Switch.

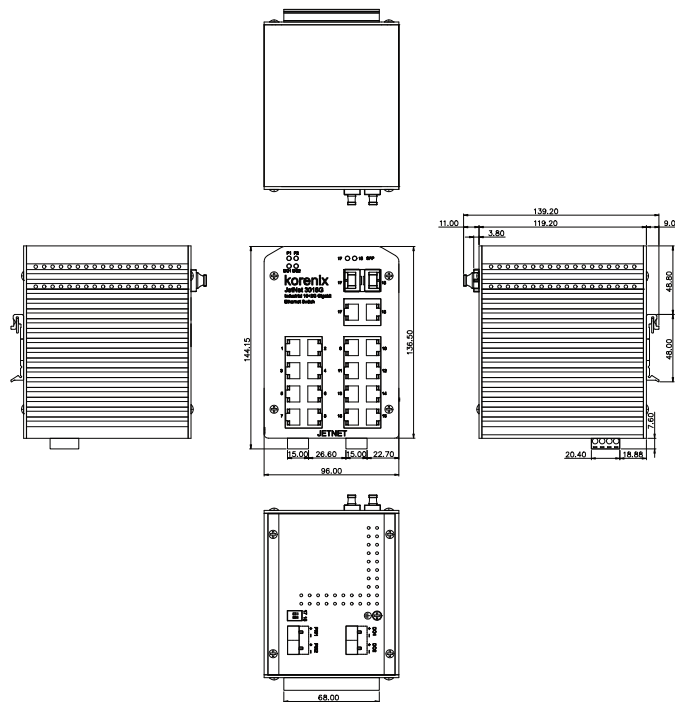
The IEEE802.1p Quality of Service (QoS) mechanism enlarges and extends the performance of networking transmissions on the field sites.

## Hazardous Environment Application

To survive in harsh environments, the JetNet3018G is well-designed with the wide range redundant power input with rigid housing, supporting the IP31 aluminum case with -20~70°C system operating temperature, providing excellent heat radiation.

Furthermore, Korenix also delivers you the certified SFP fiber transceivers with the same operating temperature for the JetNet 3018G and saves the purchase time consuming without quality concerns and issues.

## Dimensions (Unit –mm)



## Specification

### Technology

#### Standard:

IEEE802.3 10Base-T  
 IEEE802.3u 100Base-TX  
 IEEE802.3ab 1000Base-T  
 IEEE802.3z Gigabit Ethernet  
 IEEE802.3x flow control and back pressure  
 IEEE802.1p Class of Service

#### Switch Technology:

Store and Forward Technology, up to 12.8Gbps High System Throughput

**MAC Address:** 8K MAC address table

**System Packet Buffer:** 2Mbits shared packet buffer

**Jumbo Frame:** Enable Jumbo Frame, Up to 9,216 bytes

**Quality of Service:** Compliance with IEEE802.1p class of service with Tag Based Priority rule.

Each switch port provides 4 priority queues as following - 8 (Higher) : 4(High) : 2(Low) : 1(Lower) scheduling.

The Tag Priority ID as following: Highest (6,7), High (4,5), Low (0,3), Lowest (1,2)

### Interface

**Number of Ports:** 16 x 10/100 Base-TX with Auto MDI/MDI-X function, ,Auto-Negotiation

2 x 1000Base-T supports Auto MDI/MDI-X , Auto-Negotiation function and combo with Small Form Factor Package (SFP) socket

#### Connectors:

10/100 Base-TX: RJ-45

1000Base-T: RJ-45

SFP: supports all 3.3v SFP type Gigabit fiber transceiver

Power: 4-Pin Removable Terminal Block

Relay Output: 4-Pin Removable Terminal Block

#### Cables:

RJ-45 connector: supports CAT-3, CAT-4, CAT-5 unshielded twisted pair or shielded twisted pair cable. The maximum link distance is 100 meters

### Diagnostic LED:

System Power: Power 1 (Green), Power 2 (Green)

Relay Output: Relay Output 1 (Red), Relay Output 2 (Red)  
 10/100 Mbps RJ-45 port: Link (Green/Left), Activity(Yellow Blinking/Right)

1000Base-T RJ-45 port: 10/100 Link (Green/Left), 1000 Link (Yellow/Right), Activity (Green Blinking/Yellow Blinking)

SFP port: Link/Activity (Green/Green Blinking)

### Power Requirements

**System Power:** 4 pins terminal block for power input.

DC 24V (12~48V) with polarity reverse protection and redundant function

**Power Consumption:** 10Watt

### Mechanical

**Installation:** DIN-Rail or Wall mount

#### Case:

Aluminum metal case with IP31 grade case protection for drop-waterproof and dustproof

**Dimension:** 137mm(H) x 96mm (W) x 119mm (D)

**Weight:** 1kg without package

### Environmental

**Operating Temperature:** -20 ~70°C

**Operating Humidity:** 0% ~ 90%, (non-condensing)

**Storage Temperature:** -40 ~ 80°C

**Storage Humidity:** 0%~ 95%, (non-condensing)

**Hi-Pot:** 1.5KV on port to port and port to power

### Regulatory Approvals

**Maritime:** DNV(Pending)

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

#### EMS:

EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5,

EN61000-4-6, EN61000-4-8, EN61000-4-11

**Vibration:** IEC60068-2-6

**Free Fall:** IEC60068-2-32

**MTBF:** At least 200,000 hours @ 25°C

**Warranty:** 5 years

Industrial  
PoE Switch

IP67/68  
Ethernet Switch

Rackmount  
Managed  
Switch

Gigabit Switch

Redundant  
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Entry-Level  
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Networking  
Computer

Communication  
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Ethernet  
I/O Server

Serial Device  
Server

Media  
Converter

Multiport  
Serial Card

SFP Module

Din Rail  
Power Supply

## Ordering Information

**JetNet 3018G Industrial 16+2G Gigabit**

**Ethernet Switch**

Includes:

- JetNet 3018G
- Quick Installation Guide
- CD User's manual

## Optional Accessories

**Gigabit Multi-Mode SFP Transceiver**

**Gigabit Single-Mode SFP Transceiver**

**Gigabit BIDI/WDM Single-Mode SFP Transceiver**