

## JetNet 5010G

### Industrial 10-port Gigabit Managed Ethernet Switch

- 7 10/100 Base TX and 3 Gigabit RJ-45/SFP combo (10/100/1000 Base-TX, 100 FX, Gigabit SX/LX)
- 32G switch Fabric, 8K MAC address
- Patented Rapid Super Ring (RSR), Recovery time <30ms
- Dual Homing II, Enable RSTP and RSR at the same device
- Embedded Hardware Watchdog timer to auto reset when failure
- LACP/VLAN/ GVRP/QoS/IGMP Snooping/Rate Control/ Online Multi-Port Mirroring
- Secured by Port Security, Access IP list, SSH and HTTPS Login
- Event Notification by E-mail, SNMP trap and SysLog
- Cisco-Like CLI, Web, SNMP/RMON for network Management
- Redundant DC Power Inputs, Digital Input and Relay Output
- 1.5KV Hi-Pot Protection for ports and power
- Industrial Heat dispersing design, -10~70°C operating temperature, Rigid Aluminum Case Complies with IP31



### Overview

The JetNet 5010G is a Managed industrial Ethernet Switch, equipped with 7 ports 10/100TX and 3 ports 10/100/1000 RJ-45 / 100-FX / Gigabit SX/LX combo ports. The JetNet5010G is designed as rugged surface in aluminum material and with wide operating temperature.

The software supports full L2 management features, ring redundancy, network control, security and alert features. The JetNet 5010G also supports RS-232 console for out of band management.

### Superb Management Features

It is critical for industrial applications that network remains non-stop. Korenix Rapid Super Ring technology provides network redundancy that can self-recover in less than 30ms at full load. Moreover, JetNet 5010G provides users with many advanced management features. It can be configured smartly by console CLI and web browser. Network administrators can define event notification to be sent via E-mail, SNMP trap, Syslog or relay output. Online status of each port is also shown on web page. To optimize network traffic, network administrators can segment ports

into different VLANs, or filter multicast traffic by IGMP Snooping. Bandwidth can be managed by port rate control to avoid abnormal broadcast storm. To enhance security, port access can be limited to pre-defined IP address table, binding MAC address to specific port or managed by HTTPS or SSH. Network determinism is answered by QoS, Quality of Service, for traffic prioritization. JetNet 5010G is the perfect combination for intelligent network management and robust network operation



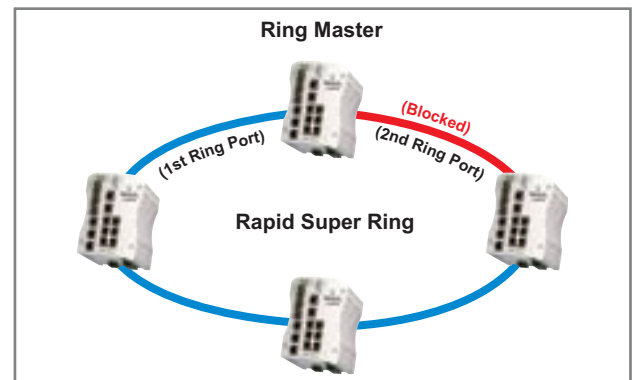
## Comprehensive Redundant Solutions

It is critical for industrial applications that network remains non-stop. The JetNet 5010G supports Rapid Super Ring technology which meets the fastest failover time in the world, less than 30 milliseconds, up to thirty units connected in a Gigabit Fiber Ring topology. The advanced Dual-homing II technology also facilitates the JetNet 5010G to connect with the core managed switch via standard Rapid Spanning Tree Protocol. To higher link availability and increase link capacity, the JetNet 5010G has been

implemented IEEE 802.3ad Link Aggregation Control Protocol (LACP). With LACP technology, the JetNet 5010G can negotiate an automatic port bundling dynamically between switches. Two or more Fast Ethernet, or Gigabit Ethernet connections are combined in order to increase the bandwidth and to create resilient and redundant links. The JetNet 5010G also allows two power inputs for power redundancy and wide DC power range, from 12VDC to 48VDC plus supporting -48VDC in industrial applications.

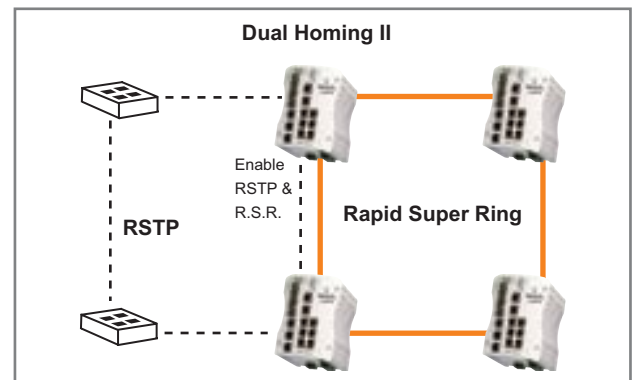
### Rapid Super Ring (RSR)

Rapid Super Ring is Korenix 2nd generation Ring redundancy technology. The recovery time is enhanced from 300ms to 30ms for Fiber ring. The Ring Master can be auto-selected by the RSR engine. The 1st Ring Port of the R.M. is the primary path. The 2nd Ring Port of the R.M. is the block path. Once the primary path is failure, the 2nd path will be recovered within 30ms.



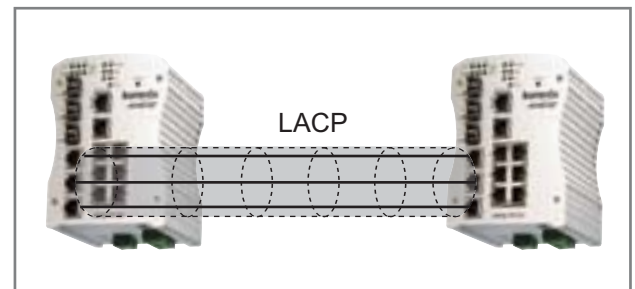
### Dual Homing II

Dual Homing II is also the important feature of Korenix 2nd generation Ring redundancy technology. When you want connect multiple RSR or form the redundant topology with other vendors, Dual Homing II allows you enable RSTP and RSR at the same device. Thus you have more flexibility and standard (RSTP) way to construct your network topology.



### Link Aggregation Control Protocol

Link Aggregation Control Protocol allows you to group multiple Ethernet ports in parallel to increase the link bandwidth. The aggregated ports can be viewed as one physical port, so that the bandwidth is higher than just one single Ethernet port. The member ports of the same trunk group can balance the loading and backup with each other. The LACP feature is usually used when you need higher bandwidth for the backbone network. This is an inexpensive way for you to transfer much more data.



## Specification

### Technology

**Standard:**

IEEE 802.3 10Base-T Ethernet  
IEEE 802.3u 100Base-TX Fast Ethernet  
IEEE 802.3ab 1000Base-TX  
IEEE 802.3z Gigabit Ethernet Fiber  
IEEE 802.3x Flow Control and Back-pressure  
IEEE 802.1p class of service  
IEEE 802.1Q VLAN  
IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP)  
IEEE802.3ad LACP

### Performance

**Switch Technology:**

Store and Forward Technology with 32Gbps Switch Fabric.

**System Throughput:** 14,880pps for 10M Ethernet, 148,800pps for 100M Fast Ethernet, 1,488,100 for Gigabit Ethernet

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

**MAC Address:** 8K MAC

**Packet Buffer:** 1Mbits

**Transfer performance:** 14,880pps for Ethernet and 148,800 for Fast Ethernet, 1,488,100 for Gigabit Ethernet

**Relay Alarm:** Dry Relay output with 1A@24V ability.

### Management

**Configuration:** Cisco-Like CLI, Telnet, Web, TFTP/Web Update for firmware and configuration backup and restore, DHCP Client, warm reboot, reset to default, Admin password, Port Speed/Duplex Control, status, statistic, MAC address table display, static MAC, Aging time, SNMP v1, v2c, Traps and RMON1.

**SNMP MIB:** MIBII, Bridge MIB, VLAN MIB, SNMP MIB, RMON and Private MIB

**Port Trunk:** Up to 5 Static Trunk and 802.3ad LACP

**VLAN:** 802.1Q VLAN, GVRP. Up to 64 VLAN groups

**Port Trunk:** Up to 5 Static Trunk and 802.3ad LACP

**Quality of Service:** Four priority queues per port, 802.1p COS and Layer 3 TOS/DiffServ

**IGMP Snooping:** IGMP Snooping V1/V2 for multicast filtering and IGMP Query V1/V2

**Rate Control:** Ingress/Egress filtering for Broadcast, Multicast, Unknown DA or All packets

**NTP:** Network Time Protocol to synchronize time from internet

**Embedded Watchdog:** Embedded hardware watchdog timer to auto reset system when failure

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

**Port Security:** Assign authorized MAC to specific port

**IP Security:** IP address security to prevent unauthorized access

**E-mail Warning:** Automatic e-mail warning by pre-defined events

**System Log:** Supports both Local mode and Server mode

### Network Redundancy

**Rapid Spanning Tree Protocol:** IEEE802.1D-2004 Rapid Spanning Tree Protocol. Compatible with Legacy STP and 802.1w.

**Rapid Super Ring(RSR):** 2nd generation Korenix Ring Redundancy Technology. Failure recovery within 30ms.

**Dual Homing II:** To enable RSR and RSTP at the same device.

**Auto Ring Coupling:** Auto couple multiple Rapid Super Rings.

**Legacy Super Ring:** Client mode to backward compatible

### Interface

**Number of Ports:** 10/100TX: 7 x RJ-45, Auto MDI/MDI-X, Auto Negotiation  
10/100/1000TX: 3 x RJ-45, combo with SFP

Gigabit Fiber / 100Base-FX: 3 x SFP with Hot Swappable

**Cables:** 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable (100m)

100 Base-TX: 2/4-pair UTP/STP Cat. 5 cable (100m)

1000 Base-T: 4-pair UTP/STP Cat. 5 cable (100m)

**Diagnostic LED:**

10/100 RJ-45: Link /Activity(Green), Full duplex/Collision (Yellow)

Gigabit Copper/SFP: Link/Activity(Green)

Unit: Power(Green), Digital Out(Red), Digital Input(Green), R.M.(Green)

**RS232 Console:** RJ-45 Connector, Pin3: TxD, Pin6: RxD, Pin5:GND

**Power:** 2 sets of power Input

**Digital Input:** 2 sets of Digital Input

Logic Low (0): 0-10VDC / Logic High(1): 11-30VDC

**Alarm:** 2 sets of Relay output for pre-defined events

**Reset:** Reset button is provided to restore default settings.

### Power Requirements

**System Power:** 12~48V/-12~-48VDC with Reverse Polarity Protection

**Power Consumption:** About 11.5 Watts @ DC 48V

### Mechanical

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

**Case:** IP-31 protection, aluminum metal case

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

**Weight:** 0.915kg with package

### Environmental

**Operating Temperature:** -10°C ~70°C

**Operating Humidity:** 5% ~ 95%, non-condensing

**Storage Temperature:** -40°C ~ 85°C

**Hi-Pot:** 1.5KV for ports and power

### Regulatory Approvals

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

**EMC Immunity Interface:**

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:** IEC60068-2-27

**Vibration:** IEC60068-2-6

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

**MTBF:**249,683 Hours ,\*MIL-HDBK-217F GB standard

**Warranty:** Global 5 years

## Ordering Information

### JetNet 5010G Industrial 10-Port Managed Ethernet Switch

Includes:

- 7-ports 10/100Base-TX and 3 10/100/1000 RJ-45/SFP Combo ports Switch
- Quick Installation Guide, Documentation CD-ROM, Wall mounting plate