

JetNet 4006

Industrial 6-port Managed Fast Ethernet Ring Switch



CE FC ~~X~~ RoHS

MSR
< 5ms

LLDP &
Korenix
NMS

DHCP
Option 82

- 4 10/100 Base TX ports plus 2 redundant 10/100 Base TX uplink ports
- Patented Multiple Super Ring - Network Recovery time < 5 ms
- Patented Rapid Dual Homing – compatible with RSTP
- Supports LLDP and Korenix NMS software for auto-topology visualization and efficient group management
- Supports SNMP, Web, Telnet and Korenix NMS for remote management
- Port-Based VLAN with Tag Modification for efficient traffic transmission
- DHCP Client/Server/ DHCP Relay (Option 82) for automatic IP configuration
- IEEE 802.1p QoS with CoS, DSCP scheme for high-priority data traffic
- IGMP Snooping with Query Mode for optimized multicast forwarding
- DC 12~48V Redundant power input with polarity reverse protection
- Operating temperature -25~70°C

Overview

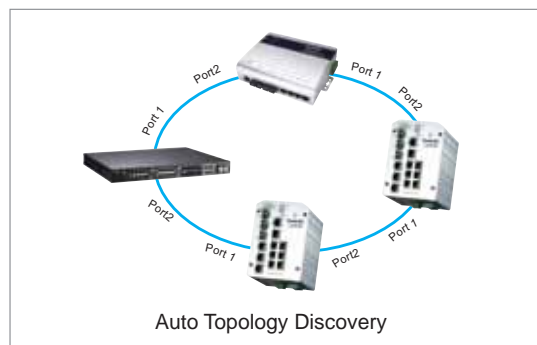
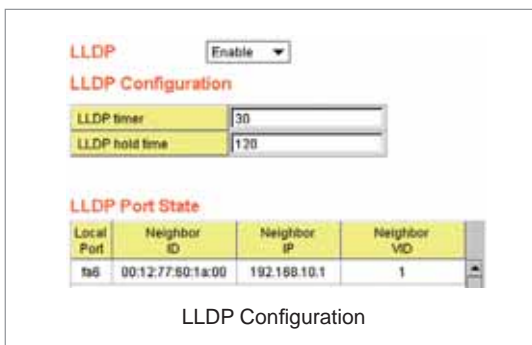
Korenix JetNet 4006 series is an Industrial Managed fast Ethernet Ring switch equipped with 4 10/100 Mbps ports plus 2 10/100 Mbps uplink ports for forming redundant connection in industrial Ethernet applications. The LLDP design allows the switches to be managed and configured easily by a single administrator console, where the topology can be automatically drawn in just seconds. The JetNet 4006 series combines more advanced Layer2 management protocols, such as the DHCP option 82, VLAN, IGMP snooping or SNMPv3 for efficiently controlling and managing the network performance in industrial environments. To provide network redundancy with guaranteed

secure and reliable data transmission, JetNet 4006 series supports Korenix patented fast network ring recovery technology - the Multiple Super Ring (R.S.R.) which can recover network failures in just 5 milliseconds. The RSR co-exists with the IEEE 802.1d RSTP:2004 standard to deliver non-stop transmission by Rapid Dual Homing (R.D.H.) technology. JetNet 4006 is designed with a slim IP31 rugged aluminum alloy injection case with great heat radiation ability to work reliably under high temperature environment. To provide more reliability for industrial applications, it supports wide range power input DC 12~48V with auto polarity reverse function.

Auto Network Visualization & Topology Discovery

With the increasing popularity of internet applications, network traffic becomes heavier and hard to monitor and diagnose. To solve these issues, IEEE organization announced a new standard, the IEEE 802.1AB Link Layer Discovery Protocol for device auto discovery as well as for building infrastructure map by NMS. JetNet 4006 incorporates the LLDP

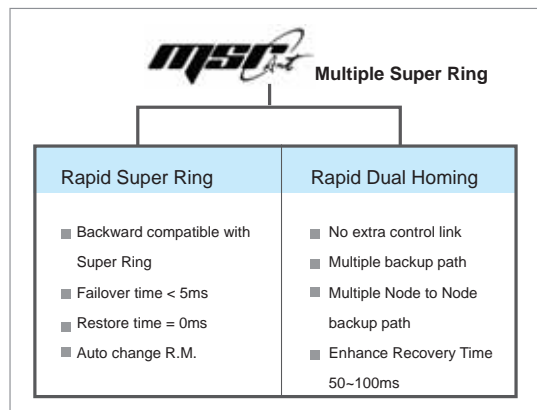
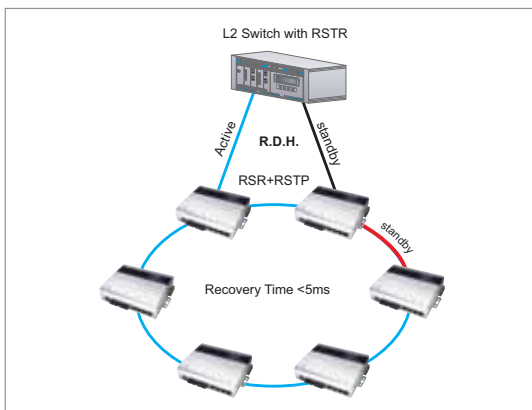
function and efficiently works with the Korenix patented Korenix NMS, to easily discover devices and automatically draw out network topology with the link interface number of each device. This feature allows system administrators efficiently maintain the network system.



Comprehensive Redundant Solutions — Multiple Super Ring (MSR™)

The JetNet 4006 supports Rapid Super Ring and Rapid Dual Homing which are included in M.S.R. ring technology for network ring redundancy applications. The two 10/100TX Ethernet ports of JetNet 4006 provide high speed uplink to connect with higher level backbone switches with Korenix MSR™ network redundancy

technology. To ensure continuous transmission, the RSR topology allows linking up the backup path in 5ms when main path disconnection occurs. Furthermore, to integrate with other core Switches JetNet 4006 provides Rapid Dual Homing function which allows to integrate RSR with RSTP.

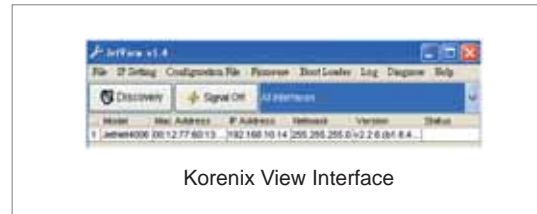


- Industrial Intelligent NMS
- Rackmount PoE Plus Switch
- Industrial PoE Plus Switch
- Industrial 12-24V PoE Switch
- Industrial PoE Switch
- Rackmount L3/L2 Switch
- Gigabit Managed Switch
- Managed Ethernet Switch
- Entry-level Switch
- Wireless Outdoor AP
- Embedded PoE/Router Computer (LINUX)
- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/Serial Board
- Ethernet I/O Server
- Media Converter
- Serial Device Server
- SFP Module
- Din Rail Power Supply

Full Layer2 Network Management Interface

JetNet 4006 supports versatile management interfaces including secure Web browsing-HTTPS, secure remote Telnet management- S.S.H., SNMP v1/v2c/v3, RS-232 local console and Korenix View

Pro for fast and easy installation. All the real-time system status can be simply monitored and configured through these management interfaces.



Auto Device IP Obtain and Rerouting DHCP request

In large network systems, system IP address is difficult to maintain and efficiently assign to each device. Usually, it is listed in a table and it takes long time for IT engineers to configure those devices one by one unless using the DHCP technology. JetNet 4006 supports various DHCP functions, including DHCP Client, Server and Relay (option 82).

these features, it can obtain system IP address from DHCP Server, assign IP address to another link partner with IP& MAC address binding or exclude specified IP address, re-routing DHCP request to other network subnets. Therefore, system administrators can easily and efficiently manage the IP address without on-site configuration.



◀◀◀ Industrial L2 / L3 Rackmount / Rail Ethernet Switch

Quality of Service & Port-Based VLAN

To improve transmission performance, JetNet 4006 adopts QoS function with 8:4:2:1 WRR forwarding scheme and port-based VLAN with Tag ID modification function. These features ensure that the real-time service will be processed in low forwarding latency, like chatting via network, real-time security through video, etc.



Industrial Intelligent NMS

Rackmount PoE Plus Switch

Industrial PoE Plus Switch

Industrial 12-24V PoE Switch

Industrial PoE Switch

Rackmount L3/L2 Switch

Gigabit Managed Switch

Managed Ethernet Switch

Entry-level Switch

Wireless Outdoor AP

Embedded PoE/Router Computer (LINUX)

Industrial Communication Computer (WIN/LINUX)

Ethernet/PoE/Serial Board

Ethernet I/O Server

Media Converter

Serial Device Server

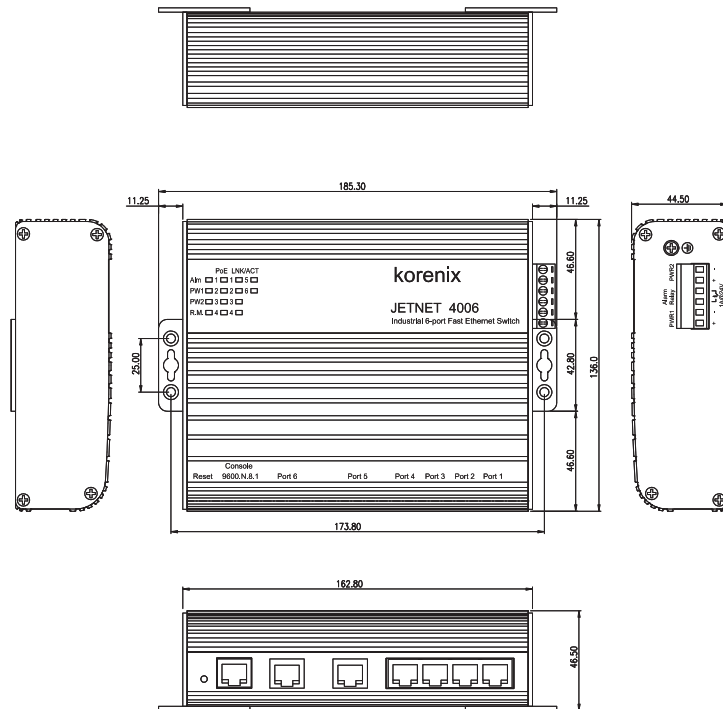
SFP Module

Din Rail Power Supply

JetNet 4006 Appearance



Dimension (Unit = mm)



Specification

Technology

Standard:

IEEE 802.3 10Base-T
IEEE 802.3u 100Base-TX
IEEE 802.1p Class of Service
IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP)
IEEE 802.1AB Link Layer Discovery Protocol

Performance

Switch Technology: Store and Forward Technology with

3.2Gbps wire-speed non-blocking Switch Fabric

System Throughput: 1.785Mpps

MAC Address: 2000

Packet Buffer: Embedded 1Mbits shared buffer

Transfer performance: 14,880pps for Ethernet and 148,800 for Fast Ethernet and transfer packet size from 64 to 1522Bytes

Management interface: SNMP v1, v2c and v3, Web browser, Korenix View, Korenix NMS and Console Management

SNMP MIB: RFC 1213 MIBII, RFC 1493 Bridge MIB, RFC 1757 RMON MIB, RFC 2674 VLAN MIB, RFC 1643 Ethernet like MIB, RFC1215 Trap MIB, , Korenix Private MIB

SNMP Trap: The SNMP trap agent provides Cold start, Warm start, Port event, Power event, Authentication failure

System Log: 1000 system entries for system or remote log server

Class of Service: IEEE 802.1p class of service, with 4 priority queues per port

Quality of Service: Quality of Service determined by port, Tag and IPv4 Type of Service

DHCP: DHCP Client, DHCP Server and DHCP Relay (DHCP option 82) The DHCP-Server functions supports specified IP exclude and MAC binding function.

Timer: Supports Network Time Protocol (NTP) to synchronize time from internet

VLAN: Port Based VLAN with Tag modification

IGMP: The IGMP supports IGMP v1, V2C protocol with IGMP Snooping and Query functions

Network Redundancy: Supports Rapid Super Ring function for network redundancy with 5ms network recovery time; To inter-operate with other higher-level switches, it provides Rapid Dual Homing (R.D.H.) technology compliant with RSTP protocol. JetNet 4006 is also compliant with IEEE802.1d 2004 edition for RSTP and STP.

IEEE 802.1AB LLDP: Supports Link Layer Discovery Protocol for device discovery and building infrastructure map

Event Alarm Relay: 1 Dry Relay Contact output for port link down and System power events

Supports 1A @24V current ability

Firmware upgrade: TFTP and HTTP firmware upgrade

Syslog: Message logged with server and client mode

Interface

Number of Ports:

6 x 10/100 Base-TX

Connectors: 10/100TX: RJ-45

RS-232 Console: RJ-45

6-pin Terminal Block: Power 1 and 2, Dry Relay Alarm Output

Cable: 10Base-T: 4-pair UTP/STP Cat. 3, 4, 5 cable, EIA/TIA-568B 100-ohm(100m)

100Base-TX: 4-pair UTP/STP Cat.5, Cat.5E/Cat.6 cable, EIA/TIA-568B 100-ohm(100m)

Reset Button: For system reboot and factory default setting

Diagnostic LED: Power LED: Power 1/Power 2 (Green)

Fast Ethernet Port 1-6: Link (Green) /Activity (Green blinking). Alarm (Red): Port link down or power failure occurred – software configuration

Power Requirements

System Power:

Redundant Power input with polarity reverse function

Power Input: DC 12~48V

Power Consumption: 8 Watts @ 48V (Maximum)

Mechanical

Installation: DIN-Rail or wall mount

Case: IP-31 grade aluminum metal case

Dimension:

45.5 mm (H) x 185.3 mm (W) x 136 mm (D) without DIN

Weight:

0.62 kg with package

0.55 kg without package

Environmental

Operating Temperature: -25 ~ 70°C

Operating Humidity: 5% ~ 95% (non-condensing)

Storage Temperature: -40 ~ 80°C

Storage Humidity: 5% ~ 90% (non-condensing)

Regulatory Approvals

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

EMS: IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6

Shock: IEC60068-2-27

Vibration: IEC60068-2-6

Free Fall: IEC60068-2-32

Warranty: 5 years

Ordering Information

JetNet 4006 Industrial 6-port Managed Fast Ethernet Ring Switch

Includes:

- JetNet 4006
- Quick Installation Guide
- RS-232 Serial Cable
- DIN Rail Mount Kit