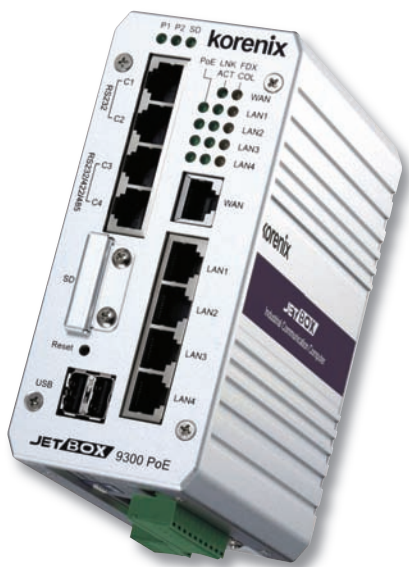


# JetBox 9310

## Industrial PoE Networking Computer



The JetBox 9310 is a patented 6-in-1 Networking Computer!

### FEATURES

#### Industrial computer

- RISC, 64MB SDRAM, Fan-less and wide operation temp (-40 ~ 80°C)
- Linux, Modbus gateway for ready to use.
- Two USB, SD card for control program upgraded.

#### Industrial Router (5 Ethernet ports)

- Free combination between WAN & LAN
- IP routed, static routing, NAT, firewall, DMZ

#### Industrial PoE

- Four ports, IEEE802.3af 15.4W
- PoE scheduling

#### Industrial Managed Switch

- QoS
- VLAN (802.1Q, port-based)

#### Industrial Serial Device Server

- Two RS232 ports, Two RS232/422/485 ports
- Virtual COM

#### Industrial Digital I/O Controller

- Four DI & Four DO
- DIO scheduling

Part Number	Description
JetBox 9310	6-in-1 Industrial PoE Networking Computer

In a networking communication environment, router, switch and computer are indispensable devices to a typical networking architecture. The demand for data exchange between simple sensors, various I/O controllers, serial devices, PoE switches, routers, wireless LAN and desktop systems increases exponentially. Most current networking equipment faces the difficulty and complexity of software/hardware compatibility.

Korenix, a global networking pioneer, presents the JetBox 9310, a 6-in-1 Industrial Networking Computer that consolidates an Industrial Computer, a Router, and a PoE and Managed Switch. In addition, it is equipped with the interfaces of a serial server and Ethernet I/O, making a complex network SIMPLE!

The JetBox 9310 can easily be the central computer in Automatic Control Systems; it collects the system signals and controls the on-site devices. It can monitor the entire control system through its router and Ethernet switch functionalities by forming the control system with a simple network through Ethernet. In addition, it is equipped with a serial server and I/O controller that can monitor the serial devices in the control system as well as I/O signals. Korenix's JetBox 9310 is the total solution in network computing!

Proudly Distributed by

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## Hardware Specifications

### –System

**Processor:** RISC

**System memory:** SDRAM 64MB, Max. 128MB (Optional)

**Ethernet:** 10/100 Based Tx RJ 45 connector x5, Built-in 15KV ESD protection of all signals SSD: SD card slot x1

**Serial Port:** RS-232 x2, RS-232/422/485 x2 (RJ45 connector)

**USB:** USB 2.0 x2 (Host)  
Supporting devices: USB flash, wireless dongle

**System Control:** LED per port: Link/Activity x5, (Green on/Green blinking) @100Mbps  
LED per PoE port (LAN1~LAN4): On (Green)/off x4  
LED per unit: Power On(Green)/off x2, SD card x1 (Green)  
Power on/off switch x1  
Reset button x1

**Watchdog timer:** Generates a time-out system reset, 1sec

**Power Supply:** DC input 48V ( 48V)

**OS support:** Embedded Linux 2.6.21

### –Mechanical

**Construction:** Rugged Aluminum Alloy Chassis, IP31 protection

**Color:** Silver

**Mounting:** DIN rail

**Dimension:** 66(W) x149(H) x 120.5(D) mm

**Net weight:** 700g

**Operating Temp:** 4 ~ 158 ( 20 ~ 70 ), 5 to 95% RH

**Storage Temp:** 40 ~ 176 ( 40 ~ 80 ), 5 to 95% RH

**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: CE, UL, cUL, EN60950  
Shock: IEC60068-2-27 (50g peak acceleration)  
Free Fall: IEC60068-2-32  
Vibration: IEC60068-2-6 (5g/ 5-500Hz/random operation)  
MTBF: 319,175 hours MIL HDBK 217 GB (MILITARY HANDBOOK) standard

**Warranty:** 5 years

## Software Specifications

### –Embedded Linux

**Bootloader:** JetBox bootloader

**Linux Kernel:** 2.6.21

**Shell:** GNU ash

**File system:** jffs2

**Device drivers:** SD card, USB, Watchdog timer, UAR  
Software packages: busybox, bridge-utils, ethtool, iptables, net snmp, ntp, openssh, openssl, pppd, rp-pppoe, syslogd, udhcp, setserial, goahead web server

### –Technology

**Standard:** IEEE802.3 10Base-T Ethernet  
IEEE802.3u 100Base-Tx Fast Ethernet  
IEEE802.3af Power over Ethernet (PoE)  
IEEE802.3x Flow Control and Back-pressure  
IEEE802.1p Class of service  
IEEE802.1Q VLAN

**Processing:** Store and Forward architecture

**Packet filter:** Broadcast packet filtering

### –PoE Technology

**PD classification:** detection, class ID 0~3 follow IEEE802.af standard  
PIN assignment (RJ45 connector): V+ (Pin 4,5), V- (Pin 7,8), Tx (Pin 1,2), Rx (Pin 3,6)

**Protection:** Over-current protection by PD class ID

**PoE control:** Support user configuration for PoE enable, disable, or based on schedule

**PoE schedule control:** Each PoE port can be active and powered scheduling with different rules. It supports weekly schedule on hourly basis.

**Power Limit Control:** The control mode supports IEEE802.3af standard.  
The maximum DC power delivery on each PoE is 15.4W@DC 48 V input.

### –Interface

**Number of Ports:** 5x 10/100 Base-Tx, auto MDI/MDI-X

**Network cables for PoE:** 10Base-T: 4 pair UTP/STP Cat.3,4,5, EIA/TIA-568 100ohm (100m)  
100Base-Tx: 4 pair UTP/STP Cat.5 EIA/TIA-568 100ohm (100m)

### –Routing

IP routed, static routing  
Per VLAN routing  
NAT/DMZ  
ICMP, ARP  
Block/Allow IP or port address

### –Managed PoE switch

**Configuration:** Web-interface, TFTP update, configuration backup and restore, DHCP client/server, warm reboot, reset to default, Admin password, Port speed/ Duplex control, Status and statistic display, SNMP v1/v2c/v3, Traps, RMON 1 (Statistics history, Alarm, Events), Command line interface

**MIB:** MIB II, Bridge MIB, Ethernet like MIB, VLAN MIB, Private MIB NTP for time management

**VLAN:** Supports port-based VLAN and IEEE802.1Q VLAN

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

**IP Access Control:** Support IP address security to prevent unauthorized access, E-mail warning, SMTP: Automatic e mail warning by pre-defined events

**System Event Log:** Support both local mode and server mode

### –Ethernet 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:** 1K MAC address table

**Memory Buffer:** 512 Kbits

**Back-plane:** 1.2 Gbps

