

JetBox 9435-w

Embedded 8-port VPN Routing Computer



- Intel IXP 435 667MHz networking processor to enhance routing and VPN performance
- VPN, DMVPN for enhanced secure networking
- Complete layer3 routing: OSPF, RIP, DVMRP, IPv6
- Versatile interfaces of USB, DIO, SD control
- Full managed features with QoS, VLAN
- NTP for network time management
- Embedded Linux UI—Modulized Webmin, capable of running customized control programs
- Linux Auto-run SD card for customized configuration
- Cross-platform applications by JamVM
- Separated two main DC 12~48V power inputs
- Fan-less and ruggedized industrial design for anti-vibration, anti-shock
- -40~80°C operating temperature

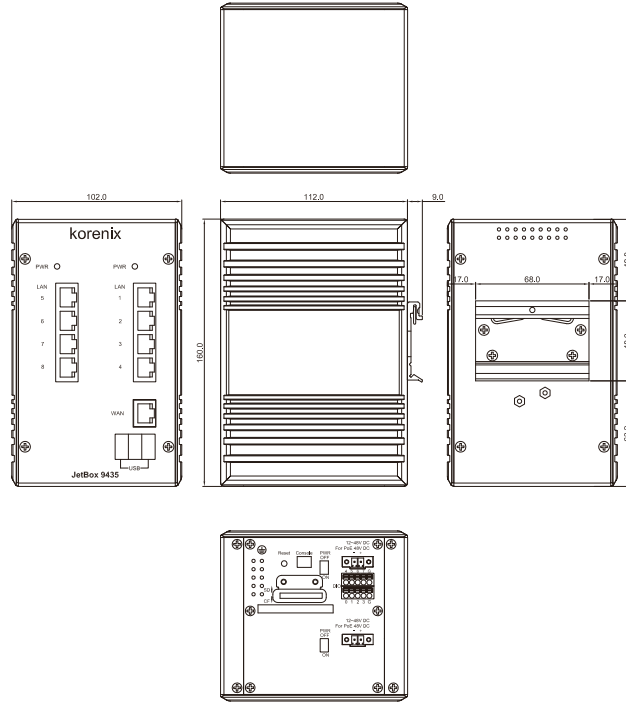


Overview

The robust JetBox 9435-w series is an industrial layer-3 router and Linux computing. It is a gateway to connect different network groups (Ethernet, fieldbus, serial or IO control) in a complex networking architecture and manage peripherals at the front-end site through its Linux programs. It is reliable (network

redundancy, system recovery) and robust (passive cooling, protected against the dusts and spills, shock & vibration resistance) to adopt in severe industrial vertical markets, such as transportation, substation, or hazardous environment.

Dimensions (Unit = mm)



- 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)**

Hardware Specifications

System

Processor:

Intel Xscale IXP435 667MHz RISC-based

Fanless

System memory: 128MB DDR2 RAM

System flash: 32MB

Ethernet: 10/100 Base-Tx RJ-45 connector x9

Storage:

SD card slot x1

CF card slot x1

USB: USB 2.0 x3 (Host)

Supporting devices: USB flash, wireless dongle

Digital IO: 8 DIO (default 8 DI), DI or DO is defined by customers

Console port: 3-pin header (RS232 interface)

LED per unit:

Power on/ off (Green on/ off) x2

LED on Ethernet port:

Link/ Activity (Green on/ blinking)

Fdx/Col status (Yellow on/ blinking)

Power on/off switch x2

(when device power on, it needs to power on 4~8 LAN switch board first, then power on the main board)

Reset button x1

HW Watchdog timer:

Generates a time-out system reset, 1sec

Power Supply:

Two main power inputs

DC 12~48V

Power Consumption: 35W

OS support: Embedded Linux 2.6.20

Mechanical

Construction:

Rugged Aluminum Alloy Chassis, IP31 protection

Color: Silver

Mounting: DIN rail (wall mount optional)

Dimension: 160(H) x 112 (W) x 102 (D) mm

Net weight: 1.2kg

Environment

Operating Temp:

-40 ~ 176°C(-40 ~ 80°C)**, 5 to 95% RH

Storage Temp: -40 ~ 176°C(-40 ~ 80°C), 5 to 95% RH

Regulation: FCC class A, CE

EN55022 class A, EN55024, EN61000-3-2, 3

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

Shock: IEC60068-2-27 (50g peak acceleration)

Vibration:

IEC60068-2-6 (5g/ 10~150Hz/operating)

MTBF: Greater than 200,000 hours @ 25°C

Warranty: 5 years

*Specifications may change without prior notice

- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/ Serial Board
- Ethernet I/O Server
- Media Converter
- Serial Device Server
- SFP Module
- Din Rail Power Supply



Feature Specifications

WAN Interface

Ethernet: 10/100 Base-Tx RJ-45 connector x1, auto MDI/MDI-X

LAN Interface

Ethernet: 10/100 Base-Tx RJ-45 connector x8, auto MDI/MDI-X

Routing per VLAN: Support port-based VLAN and IEEE802.1Q VLAN

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

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

IP Routing Service

Static routing

Dynamic routing: RIP, RIP-II, OSPF, ISIS*, BGP*, DVMRP

PPP

PPPoE

IP Firewall/ Perimeter Security

IP address and port filtering

NAT/ DMZ

VPN: L2TP, PPTP, SLIP, VLAN, IPsec, OpenVPN, GRE*,

NHRP*, DMVPN*

Management & Security

Security

HTTPS, SSH, SFTP

WebUI Webmin (optional)

Linux shell access via TELNET connection or console port

SNMP v1, v2c, v3: MIB and traps

MIB-II, Bridge MIB, Ethernet-like MIB, VLAN MIB

Proprietary SNMP MIB sample code

NTP for time management

Technology

Standard:

IEEE802.3 10Base-T Ethernet

IEEE802.3u 100Base-Tx Fast Ethernet

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

*Specifications may change without prior notice

Linux Specifications

Embedded Linux

Bootloader: JetBox bootloader

Linux Kernel: 2.6.20

Shell: GNU ash

File system: jffs2, NFS, Ext2, Ext3, VFAT, FAT

Device drivers: USB, Watchdog timer, UART, Ethernet, DIO, PoE, SD/mSD card, CF card, HW IPsec VPN, HW Open VPN, JetCard1608/ 2105/ 2154G, VGA*, Mobile dongle*, GPS dongle*

Protocols: ARP, PPP, CHAP, IPv4, IPv6, PAP, ICMP, TCP, UDP, NFS, SNMP v1/v2c/v3, NTP, SSH1.0/2.0, SSL, OpenVPN, Ipsec, PPP, PPPoE, PPTP, FTP, HTTP, SMTP, DNS, L2TP, DVMRP, OSPF, RIP v1.0/2.0, BGP*, ISIS*, VRRP*, 802.11*, HSDPA*, GPRS* telnet, dhcp, VLAN

SW package: Busybox (telnetd, inetd, udhcp, syslogd), e2fsprogs, firmware, i2c-tools, microcom, mtd, netcat, pciutils, ser2net, setserial, sddutil, usbmount, usbutils, version, bridge-utils, ethtool, iptables, net-snmp, ntp, openssh, openssl, openvpn, openswan, pppd, rp-pppoe,

pptp-linux, proftpd, samba, goahead, mutt, bind, l2tp, mrouted, quagga, vrrpd, wireless-tools, wvdial

WebUI (optional) includes:

Webmin by Korenix: DIO, PoE, Device Server (TCP Server mode), DHCP, DMVPN, DVMRP, Firmware Upgrade, GPRS, Modbus Gateway*, Module Upgrade, OSPF, RIP, Switch Port, VLAN

Webmin basic

Webmin system

Webmin servers

Webmin others

JavaVM (optional)

Korenix Linux auto-run function

Customized configuration

Process monitoring

SDK

Linux tool chain: Gcc(C/C++ PC cross compiler), uClibc

Linux sample code

Note: Software supports differ from HW functions of each model

Ordering Information

JetBox 9435-w Embedded 8-port VPN Routing Computer

Includes:

- JetBox 9435-w
- Console cable x1
- Attached 2 pin power terminal block x2
- Attached 5-pin DIO terminal block x 2
- Attached blanket to cover SD card slot
- Attached name plate to cover CD card slot
- Quick installation guide
- Documentation and software CD-ROM

Optional Accessories

- Additional applications on CF card: CF card capacity is 2G
CF2G-L-J Webmin UI & JamVM for Linux

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