

JetBox 5430-w

Embedded VPN Linux Computer : 1 WAN, 4 LAN, VPN



- Intel IXP435 400MHz with Networking Processor to enhance routing and VPN performance
- Complete Layer3 routing support: OSPF, RIP, DVMRP, IPv6
- Full managed features with QoS, VLAN
- Embedded Linux ready for easy maintenance
- DC 12~48V power input
- Fan-less, ruggedized industrial design for anti-vibration, anti-shock, and -40~80°C wide temperature operation



CE FC  RoHS

VPN

L3
Router

Overview

The compact JetBox 5430 series is an industrial embedded layer-3 router computer with performance-optimized Linux computing capabilities for front-end industrial controller applications. With its rich interface, including Ethernet, fieldbus, serial console and USB ports, the router computer operates as a gateway to connect different network groups and to manage peripherals at the front-end site through Linux programs.

Combined with IP-31 rugged fan-less design, including vibration/shock resistance and -40~80°C wide operating temperature range, the JetBox 5430 series ensure the reliability and high performance of large network infrastructures in severe industrial vertical markets, such as transportation systems, public utilities, substations or other hazardous environments.

Embedded Linux Ready

Korenix is devoted to the Linux computing and benefits customers by providing the JetBox series with embedded Linux ready system and easy-to-use interface. Compared to general purpose Linux system, embedded Linux is performance-optimized for front-end industrial control.

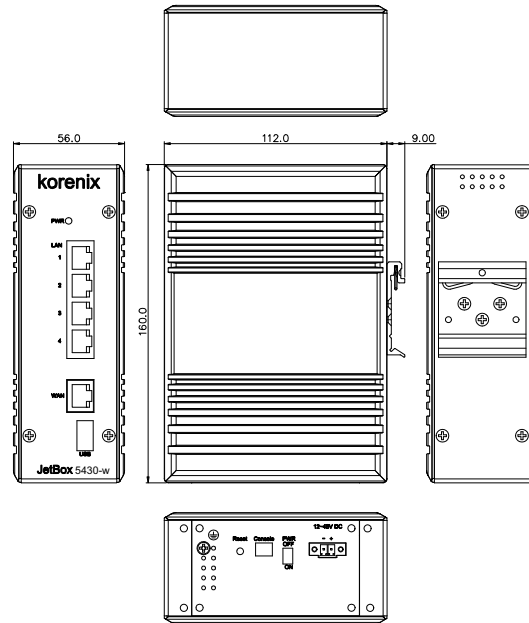
VPN (Virtual Private Network)

Since computer networks are no longer closed systems and may consist of intranets, extranets, and Internet sites. The key remote access requirement of an enterprise organization can be provided using VPN to mitigate the risks of malicious intrusion and establish a mechanism of users' identity.

DMVPN (Dynamic Multipoint Virtual Private Network) is an enhancement of VPN and an effective solution for dynamic secure overlay networks.

Industrial Communication Computer

Dimensions (Unit = mm)



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
Multiprot Serial Card
SFP Module
Din Rail Power Supply

Hardware Specification

System

Processor:

Intel Xscale IXP435 400MHz** RISC-based
Fanless

System memory: 128MB DDR2 RAM

System flash: 32MB

Ethernet: 10/100 Base-Tx RJ-45 connector x5

USB: USB 2.0 x1 (Host)

Console port: 3-pin header (RS232 interface)

LED per port (on the port):

Link/Activity (Green on/Green blinking)

Full Duplex/Collision (Yellow on/ Yellow blinking)

LED per unit:

Power on/off switch x1

Reset button x 1

HW Watchdog timer:

Generates a time-out system reset, 1sec

Power Supply: DC 12~48V

Power Consumption: 25W

OS support: Embedded Linux 2.6.20

Mechanical

Construction:

Rugged Aluminum Alloy Chassis, IP31 protection

Color: Silver

Mounting: DIN rail

Dimension: 160(H) x 112(W) x 56(D) mm

Net weight: 0.9kg

Environment

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

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

Regulation:

FCC class A, CE, UL*

EN55022 class A

EN55024

EN61000-3-2, 3

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

IEC 60950

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

*to be confirmed

**optional

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 x4, 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

Basic Web UI Module (Webmin): PPP/PPPoE Dial up, Configure file management, DHCP Server, Initial System Boot up, Firewall, Network Configuration, Scheduled Jobs, System Logs, System Time, User account manager
Webmin configure

Extensible for other proprietary Web UI modules:

Routing, NAT, Switch, DIO, Serial

Extensible for other standard Web UI (webmin) modules

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

*Optional

Linux Specification

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

Protocol: ARP, PPP, CHAP, IPv4, IPv6, PAP, ICMP, TCP,

UDP, NFS, RIP, RIP-II, OSPF, ISIS, BGP, DVMRP, L2TP,

PPTP, SLIP, VLAN, IPsec, OpenVPN

Software packages: busybox (telnetd, inetd, udhcp), e2fsprogs, i2c-tools, ltp-testsuite, microcom, mtd, pciutils,

usbmount,usbutils, bridge-utils, ethtool, iptables, net-snmp, ntp, openssh, openssl,openVPN, openSWAN, pppd, pptp-linux, proftpd, samba, smtpclient, bind, l2tp, mrouted, quagga, wireless-tools, syslogd, udhcp, setserial, goahead web server

Korenix Linux auto-run function

Customized configuration

Process monitoring

SDK

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

Linux sample code

Industrial Communication Computer

Ordering Information

JetBox 5430-w Intel IXP435 400MHz, 12~48V DC, 128MB DDR2 RAM, -40~80°C

Includes:

- JetBox 5430-w
- Console cable x1
- Attached 2-pin power terminal block
- Quick installation guide
- Documentation and software CD-ROM

Optional Accessories

- 802.11g wireless dongle
- GPRS/3G USB dongle

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