

JetBox 9460-w

Embedded 4-port VPN Routing Computer, w/ miniPCle & SIM slot



- Intel IXP 435 667MHz networking processor
- VPN, DMVPN for enhanced secure networking
- Complete layer3 routing: OSPF, RIP, DVMRP, IPv6
- miniPCle & SIM slot for mobile module (GSM/GPRS/3G/HSUPA)
- 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
- DC 12~48V power input
- Fan-less and ruggedized industrial design for anti-vibration, anti-shock
- -40~80°C operating temperature



Overview

The JetBox 9460 is an industrial layer-3 router with Linux computing capability. 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.

Mobile network (optional) (GSM/GPRS/3G/3.5G/HSUPA)

The reserved mobile network card slot can extend the network communication via GSM/GPRS/3G/3.5G/HSUPA and enhance the mobility of the JetBox 9460.

GPS (optional)

GPS is another function which can be provided through the mobile network card for the geographic positioning service. It can deliver the vehicle position data through an unlimited networking and suitable to be used in fleet

management.

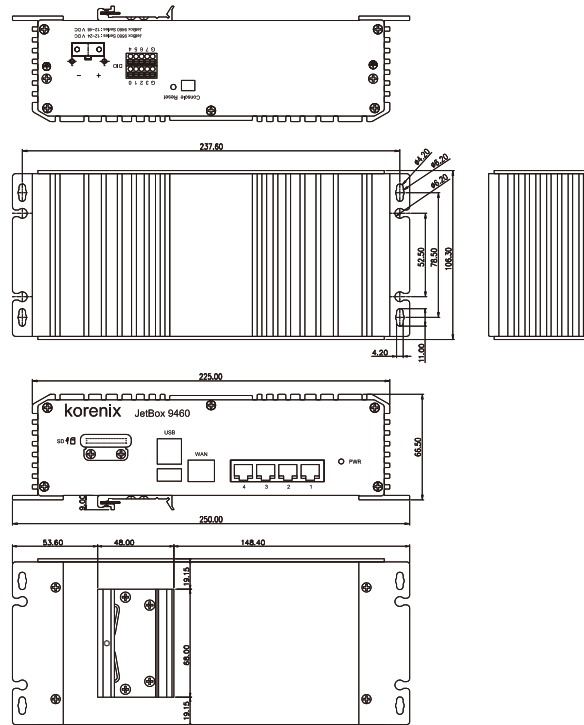
The most powerful control system in moving vehicles

In addition to the vehicle-specific power input, and the mobile communication enhancement, the JetBox 9460 carries 3 USB, 8 DIO and has the capability of layer3 routing, Linux computing, therefore the JetBox 9460 is the most powerful front-end control system used in moving vehicles.

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.

Dimensions (Unit = mm)



Hardware Specifications

System

Processor:

Intel XscalelXP435 667MHz RISC-based

Fanless

System memory: 128MB DDR2 RAM

System flash: 32MB

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

Storage:

SD card slot x1

CF card slot x1

Mobile slot:

miniPCle card slot x1

SIM 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) x1

LED on Ethernet port:

Link/ Activity (Green on/ blinking)

Fdx/Col status (Yellow on/ blinking)

Reset buttonx1

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: Wall mount/DIN rail

Dimension: 66.5(H) x 250 (W) x 106.3 (D) mm

Net weight: 1.07kg

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

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
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



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

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, ssdutil, 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 9460-w Embedded 4-port VPN Routing Computer, w/ miniPCI & SIM slot

Includes:

- JetBox 9460-w
- Console cable x1
- Attached 2-pin power terminal block
- Attached 5-pin DIO terminal block x 2
- Attached blanket to cover SD card slot
- DIN-rail kits
- 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

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