JetBox 9433G-w

Embedded 4-port GbE VPN Routing Computer

CE FC RoHS

4GbE | DIO | USB | SD/CF Card | JamVM

Linux SDK | L3 Router | VPN | IPv6 | -40~80°C

- 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
- 4-port Gigabit Ethernet for high-bandwidth data transmission
- 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

Programmable

Overview

JetBox 9433G-w is an Embedded Gigabit L3 Router Computer with 4 Gigabit Ethernet ports to provide high-bandwidth network connections in Industrial environments.

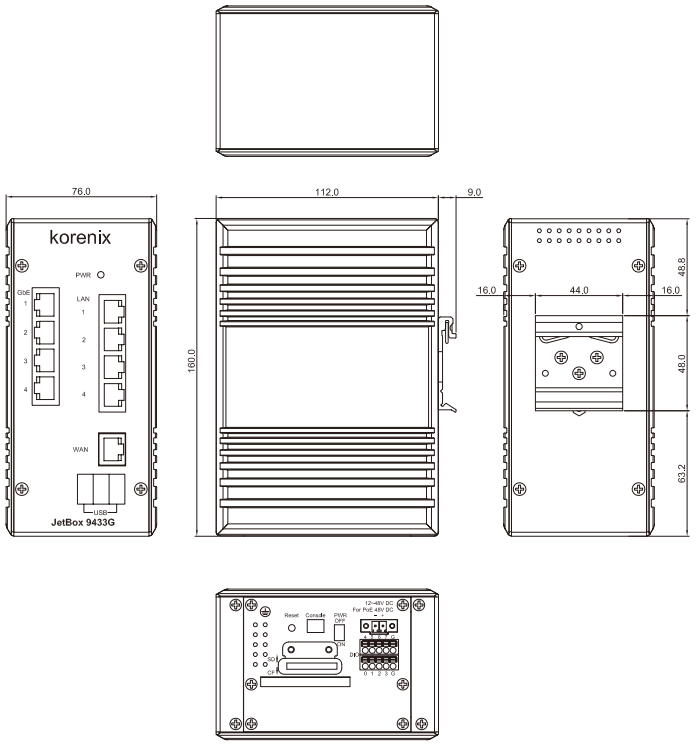
With complete Layer3 routing and VPN functionalities the JetBox 9433G-w expands networking capabilities and reduces system costs by effectively managing dynamic long-distance and secure network groups.

To work reliably under vibration and shock environments, the rugged fan-less design and -40~80°C wide operating temperature for harsh environments provide solid Gigabit Ethernet in large network infrastructures.

The most powerful control system as a network gateway

Besides the Gigabit Ethernet connections, the JetBox 9433G-w carries 3 USB, 8 DIO and has the capability of layer3 routing, Linux computing, therefore the JetBox 9433G-w is the most powerful front-end control system as a networking gateway.

Dimensions (Unit = mm)



Hardware Specifications

System

Processor:
Intel Xscale IXP435 667MHz RISC-based
Fanless
System memory: 128MB DDR2 RAM
System flash: 32MB
Ethernet:
10/100/1000 Base-Tx RJ-45 connector x4
10/100 Base-Tx RJ-45 connector x5
Cables:
10 Base-T: 2-pair UTP/STP Cat. 3,4,5 cable (100m)
100 Base-Tx: 2-pair UTP/STP Cat. 5 cable (100m)
1000 Base-T: 4-pair UTP/STP Cat. 5 cable (100m)
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) x1
LED on Ethernet port :
Link/ Activity (Green on/ blinking)
Fdx/Col status (Yellow on/ blinking)
Gigabit copper: Link/ Activity (Green on/ blinking)
Gigabit copper: Speed 1000M/ other (Yellow on/ off)
Reset button x1
HW Watchdog timer:
Generates a time-out system reset, 1sec
Power on/off switch x1
Power Supply: DC input 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 optional
Dimension: 160 (H) x 112 (W) x 76 (D) mm
Net weight: 1.07kg

Environment

Operating Temp:
-40 ~ 176°F(-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

JETBOX

Feature Specifications

WAN Interface

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

LAN Interface

Gigabit Ethernet:
10/100/1000 Base-Tx RJ-45 x4
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,148,800 pps for fast Ethernet port, and 1,488,000 pps for Gigabit Ethernet
Transfer Packet Size:
Up to 10K byte Jumbo frames for GbE port
64 bytes to 1522 bytes (with VLAN tag) for LAN port
MAC address: 1K MAC address table
Memory Buffer:
1 Mbits for GbE port
512 Kbits for LAN port

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
IEEE802.3ab 1000Base-T
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, OSFP, 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 9433G-w Embedded 4-port GbE VPN Routing Computer

Includes:

- JetBox 9433G-w
- Console cable
- Attached 2-pin power terminal block
- Attached 5-pin DIO terminal block x2
- Attached blanket to cover SD card slot
- Attached name plate to cover CF 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