

JetBox 5300-w

2 LAN, 4 Serial Linux Computer



- RISC CPU low power consumption
- -40~80°C operating temp, fanless
- Linux programming
- Linux customized configuration auto-run via SD card
- 4-port serial: TCP server mode
- Digital I/O controller: 4 DI & 4 DO, DIO scheduling
- SNMP control
- Modbus gateway (optional)



Overview

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.

Linux Auto-run

The JetBox 5300 support Korenix Auto-Run customization setting on SD card. The advanced software feature allows users to configure their own Linux commands once the system is booted. Users only need to store the commands on an "Auto-Run" file and then store it on an SD card. This way they can automatically run specific configurations or run specific applications in the JetBox 5300 embedded computers making the industrial network management easier and more flexible.

RISC-Based Computer with low power consumption

The JetBox5300 is a RISC-based computer with lower power consumption and is stable and reliable. The JetBox5300 carries 2 LAN ports, 2 USB ports, 2

RS232/422/485, 2 RS232, 4 digital inputs and 4 outputs to be the best solution in industrial control.

Dual power inputs

The JetBox 5300 carries dual power inputs to make a power redundancy to reduce the impact of unstable power inputs.

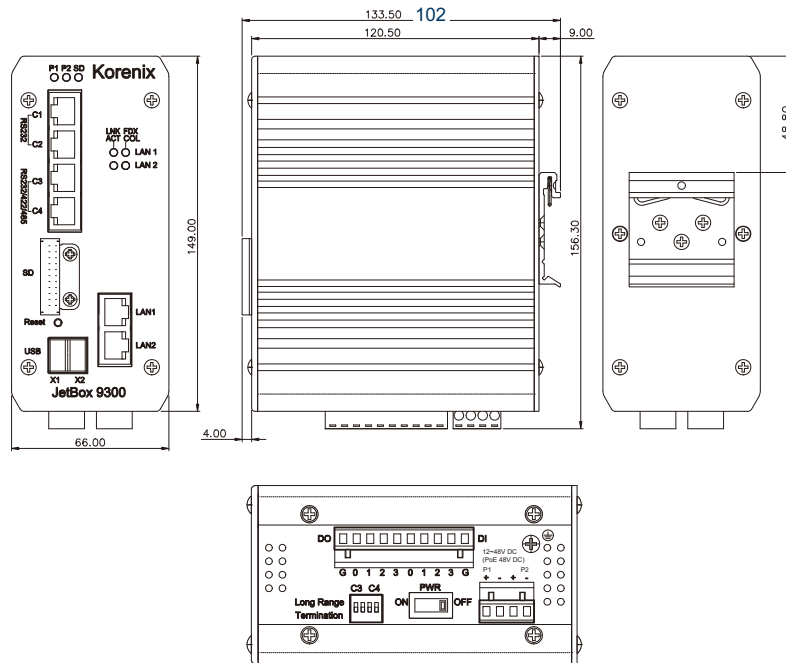
Digital Input & Output

Digital inputs and outputs are widely used in industrial applications such as indicators, alarms, reed switches, or sensors. The compact JetBox carries 4 digital output and 4 digital input channels and work as a front-end control agent.

Modbus Gateway (Optional)

For Modbus control applications, Korenix also provides the optional Modbus Gateway function on the SD card. This value-added software enables serial Modbus RTU (or Modbus ASCII) devices to communicate with Modbus TCP devices. It is an open serial communication protocol based on master/slave architecture and used to connect a supervisory computer with a remote terminal unit (RTU) in supervisory control and data acquisition (SCADA).

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

Multiport
Serial Card

SFP Module

Din Rail
Power Supply

Hardware Specification

System

Processor: Atmel AT91RM9200 180MHz

System memory: SDRAM 64MB

Ethernet: 10/100 Based-Tx RJ-45 connector x2

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

Digital IO: 4 DI & 4 DO

System Control:

LED per port:

Link/Activity x2 (Green on/Green blinking)

Full Duplex/ Collision x2 (Orange on/ Orange blinking)

LED per unit:

Power On/off x2 (Green on/off)

SD card x1 (Green plug/unplug)

Power on/off switch x1

Reset button x1

HW Watchdog timer:

Generates a time-out system reset, 1sec

Power Supply: dual inputs

DC input 12~48V

Power Consumption:

Single input 5.4W at 12V, 6.72W at 48V

Dual inputs 5.28W at 12V, 7.2W at 48V

OS support: Embedded Linux 2.6.21

Mechanical

Construction:

Rugged Aluminum Alloy Chassis, IP31 protection

Color: Silver

Mounting: DIN rail

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

Net weight: 800g

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)

IEC61373 (Random/ 5~150Hz/ operating)

MTBF: At least 200,000 hours @25°C

Warranty: 5 years

Linux Specification

Embedded Linux

Bootloader: JetBox bootloader

Linux Kernel: 2.6.21

Shell: GNU ash

File system: JFFS2, NFS, Ext2, Ext3, VFAT, FAT

Device drivers: SD card, USB, Watchdog timer, UART, Ethernet

Protocol: ARP, PPP, CHAP, IPv4, PAP, ICMP, TCP, UDP, NFS

Software packages: busybox (telnetd, inetd, udhcp), microcom, setserial, bridge-utils, ethtool, iptables, net-snmp, ntp, openssh, openssl, pppd, ftpd, rp-pppoe, smtpclient, syslogd, goahead web server

Korenix Linux auto-run function

Customized configuration

Process monitoring

Serial Interface

Serial service modes: TCP server

LAN Interface

Ethernet: 10/100 Based-Tx RJ-45 connector x2, auto MDI/MDI-X

Management & Security

Security

HTTPS, SSH

SNMP: MIB and traps

NTP for time management

SDK

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

Linux sample code

Ordering Information

JetBox 5300-w Atmel 180MHz, 12~48V DC, 64MB SDRAM, -40~80°C

Includes:

- JetBox 5300-w x1
- Serial cable (RJ45 to DB9 male, 150cm) x1
- Attached 4-pin power terminal block
- Attached 10-pin DIO terminal block
- Attached blanket to cover SD card slot
- Quick installation guide
- Documentation and software CD-ROM

Optional Accessories

Additional applications on SD card: SD card capacity is 1G

- SD1G-LM Linux Modbus Gateway

Wireless dongle