JetBox 8210

Industrial Communication Computer

- **High performance with low power consumption:**
  1. Intel XScale PXA270 RISC 416MHz,
  2. System memory 128MB, 8MB VGA
- **Plentiful interfaces:**
  Dual Ethernet, 16 DI/DO, 4 COM, 4 USB, VGA, Audio
- **Reliable robust form factor:**
  1. 5g Anti-vibration and 50g shock resistant
  2. Operating Temperature:-15~70°C, Fanless
- **Ready to use:**
  1. Embedded Linux/Win CE OS ready
  2. System Management Utility
  3. Application Development Environment
  4. Modbus, Modbus/TCP

CE FC c(UL)us LISTED RoHS

◣ Overview

The advantage of adopting Korenix JetBox series is ready-to-use. Korenix is devoted to improve the usability of embedded computer in industrial domain. Besides operating system (Linux/ WinCE), Korenix provides device drivers, protocol stacks, system utilities, supporting services and daemons in one CompactFlash card to make system integration simple. Further, Korenix provides application development toolkits for users to build up their own applications easily.
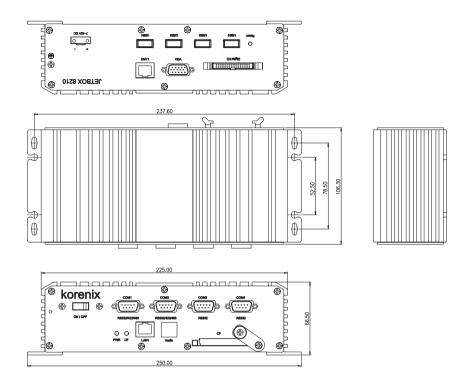
JetBox 8210 is a high performance, compact and rocky embedded computer. All-in-one device with small volume, fanless design and a capability to withstand a wide range of temperatures is suitable for industrial severe environment. It is equipped with Intel Xscale PXA270 RISC 416MHz processor and 128MB SDRAM (256MB optional) and supports Linux and WinCE 5.0 to meet requirements of industrial PC applications. For better expansibility, it carries four USB ports, two RS-232 ports and two RS-232/422/485 ports for versatile peripheral and interfaces and one CompactFlash slot for system integration. It also supports VGA and audio output to give users much flexibility in industrial applications. In addition, it is equipped with two RJ-45 ports and supports daemons and web server services to accommodate to the network communication environment today.

With complete SW solution and excellent HW design, JetBox series is the best choice of embedded computer.

◤ Dimensions (Unit = mm)

◤ Hardware Specifications

System
Processor: Intel XScale PXA270 RISC 416MHz
System Memory: SDRAM 128MB, Max. 256MB (Optional)
VGA: 8MB, DB-15 connector
Ethernet: 10/100 Based-TX RJ-45 connector x 2,
Built-in 15 KV ESD protection for all signals
SSD: Type II CompactFlash slot x 1
Serial Port: RS-232x2, RS-232/422/485x2
Audio: AC97, mini-DIN connector x 1
USB: USB 1.1 x 4
Digital I/O: 16 in & 16 out Digital IO
System Control: Power on/off switch x1, Reset button x1
Watchdog Timer: Generates a time-out system reset, 1.6 sec
Power Supply:
DC input: 7VDC ~ 40 VDC, (-40VDC) / 48VDC (-48VDC)

AC input: 100VAC ~ 240VAC@50-60Hz

OS support: Windows CE 5.0, Embedded Linux 2.6.18

Mechanical
Construction: Rugged Aluminum Alloy Chassis
Color: Aluminum
Mounting: Wallmount (Default), DIN Rail
Dimension: 250(W) x 66.5(H) x 106.3(D) mm
Net weight: 1.07 kg
Gross weight: 1.5 kg

Environment
Operating Temp: 5°F ~ 158°F (-15°C ~ 70°C), 5 ~ 95% RH
Storage Temp: -4°F ~ 176°F (-20°C ~ 80°C), 5 ~ 95% RH
Anti-Vibration: 5g / 5 ~ 500Hz / random operation
Anti-Shock: 50g peak acceleration
EMC: CE/FCC class A, UL
Warranty: 5 years

◤ Software Specifications

Embedded Linux: Linux Version 2.6.18

Protocol Stack: TCP, UDP, IPv4, SNMP, ICMP, IGMP, ARP, HTTP, CHAP, PAP, SSH 1.0/ 2.0, SSL, DHCP, NTP, NFS, SMTP, Telnet, FTP, PPP, PPPoE

System Utilities: bash, busybox, tinylogin, telnet, ftp,
Supporting Services and Daemons:
telnetd: Telnet Server daemon
ftpd: FTP server daemon
sshd: Secure shell server
Apache: Web server daemon, supports PHP and XML
MySQL: Database Server and Client
OpenVPN: Virtual private network service manager
iptables: Firewall service manager
pppd: dial in/out over serial port daemon
snmpd: snmpd agent daemon
inetd: TCP server manager program
Application Development Environment:
Korenix Linux API Library
Linux Tool Chain: Gcc, Glibc
Device Drivers: CF Card, USB, Watchdog Timer, UART, VGA, Audio

Windows CE 5.0
Protocol Stack: TCP, UDP, IPv4, SNMP, ICMP, IGMP, ARP, HTTP, CHAP, PAP, SSL, DHCP, SNTP, SMTP*, Telnet, FTP, PPP

System Utilities: Windows command shell, telnet, ftp, web-based administration manager

Supporting Services and Daemons:
Telnet Server: Allows remote administration through a standard telnet client
FTP Server: Used for transferring files to and from remote computer
systems via a network.
Web Server (httpd): WinCE IIS, offer ASP, ISAPI Secure Socket Layer support, SSL 2, SSL 3, and Transport Layer Security (TLS/SSL 3.1) public key-based protocols, and Web Administration ISAPI Extensions.
Dial-up Networking Service: RAS client API and PPP, support Extensible Authentication Protocol (EAP) and RAS scripting
Application Development Environment:
WinCE 5.0 SDK
C Libraries and Run-times
Component Services (COM and DCOM)
Microsoft Foundation Classes (MFC)
Microsoft Ⓡ .NET Compact Framework
XML, including DOM, XQL, XPATH, XSLT, SAX2
SOAP Toolkit
Winsock 2.2
Device Drivers: CF Card, USB, Watchdog Timer, UART, VGA, Audio

*Supported by WinCE professional

◤ Ordering Information

JetBox 8210d Intel PXA270 416MHz,7~40VDC,128MB SDRAM

JetBox 8210d48 Intel PXA270 416MHz,48VDC,128MB SDRAM

JetBox 8210a Intel PXA270 416MHz,AC100~240V,128MB SDRAM

All items include:

- JetBox 8210 Intel PXA270 416MHz industrial communication computer
- Quick installation guide
- Documentation and software CD-ROM

◤ Optional Accessories

- System on CompactFlash: CompactFlash card capacity is 2G

Part number: CF2G-x		L	LM	CC	CP	CCM	CPM
Linux		•	•				
WinCE	Core			•		•	
	Professional				•		•
Modbus, Modbus/TCP			•			•	•
System management utility		•	•	•	•	•	•

Ex: Part number CF2G-CCM is CF card (capacity 2G) with WinCE Core version OS, Modbus and Modbus/TCP.

- DIN Rail kits