EKI-1121L
EKI-1122L

1-port Programmable Device Server

2-port Programmable Device Server

Features

- ARM7 32-bit 80MHz processor
- 8MB Flash ROM on board
- 16MB SDRAM
- 2 x 10/100 Mbps Ethernet ports for LAN redundancy
- 1 or 2 software selectable RS-232/422/485 serial ports
- 50 bps to 921.6 kbps baud rate
- Built-in real-time clock (RTC)
- Class I, Division 2 certification
- Pre-installed Linux Kernel 2.4 platform

EKI-1121L   EKI-1122L

Introduction

EKI-1121L and EKI-1122L are RISC-based embedded communication controllers which provide dual auto-sensing 10/100 Mbps Ethernet ports for network redundancy and one or two software-selectable RS-232/422/485 serial ports. The EKI-1121L and EKI-1122L use the ARM7 RISC CPU which is a powerful computing engine to fulfill data compression or protocol conversion requirements. The built-in 8 MB flash ROM and 16 MB SDRAM provide user enough storage to run their specific applications.

Specifications

System

- **CPU**   ARM7 32-bit RISC CPU, 80 MHz
- **Flash**   8 MB
- **SDRAM**   16 MB
- **OS (pre-installed)**   uClinux
- **Console Port**   RS-232, 3-wire (Tx, Rx, GND) pin-header
- **Other**   RTC, watchdog timer

Ethernet Interface

- **LAN**   2 x auto-sensing 10/100 Mbps ports
- **Connector**   RJ-45
- **Protection**   1.5 kV magnetic isolation protection

Serial Interface

- **Serial Standards**   Software selectable RS-232/422/485 ports
- **Connectors**   D-sub 9 male
- **Protection**   15 kV ESD protection for all signals

Serial Parameters

- **Data Bits**   5, 6, 7, 8
- **Stop Bits**   1, 1.5, 2
- **Parity**   None, Even, Odd, Space, Mark
- **Flow Control**   RTS/CTS, XON/XOFF, automatic RS-485 data flow control
- **Baud Rate**   50 bps to 921.6 kbps

Serial Signals

- **RS-232**   TxD, RxD, DTR, DSR, RTS, CTS, DCD, RI, GND
- **RS-422**   TxD+, TxD-, RxD+, RxD-, GND
- **RS-485**   Data+, Data-, GND

LEDs

- **System**   OS ready, power 1 and power 2 ready
- **LAN**   Speed (10/100 Mbps), link/active (on connector)
- **Serial**   TxD, RxD

Mechanics

- **Dimensions**   37 x 140 x 95 mm (W x H x D)
- **Housing**   Metal
- **Weight**   600g
- **Mounting**   DIN-rail, Panel

Power Requirements

- **Input Voltage**   12 ~ 48 V_{DC}, redundant dual inputs
- **Power Consumption**   2.5 W

Software (uClinux)

- **Kernel Version**   2.4.31
- **Protocol Stack**   TCP, UDP, IPv4, ICMP, ARP, SNMP V1, HTTP, DHCP, NTP, NFS, SMTP, Telnet, FTP, PPP, PPPoE
- **File System**   ROMFS/JFFS2
- **System Utility**   busybox, telnet, ftp, sash, tftp
- **Daemon**   pppd, snmpd, telnetd, inted, ftpd, boa
- **Linux Tool Chain**   Arm-elf-gcc: C/C++ PC Cross Compiler
- **uClibc**   POSIX Standard Library

Environmental Limits

- **Operating Temperature**   -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature**   -20 ~ 80°C (-4 ~ 176°F)
- **Operating Humidity**   5 ~ 95 % RH

Regulatory Approvals

- **EMC**   CE, FCC Part 15 Subpart B (Class A)
- **Hazardous Location**   Class I, Division 2

Ordering Information

- **EKI-1121L**   1-port Programmable Device Server
- **EKI-1122L**   2-port Programmable Device Server
- **OPT1-DB9**   D-Sub9 to Terminal Converter