

# EKI-1521 EKI-1522 EKI-1524

1-port RS-232/422/485 Serial Device Server

2-port RS-232/422/485 Serial Device Server

4-port RS-232/422/485 Serial Device Server



## Features

- Provides 2 x 10/100 Mbps Ethernet ports for LAN redundancy
- Provides COM port redirection (Virtual COM), TCP and UDP operation modes
- Supports baud rate up to 921.6 kbps
- Allows a max. of 5 hosts to access one serial port
- Allows a max. of 16 hosts to be accessed as TCP client mode
- Built-in 15 KV ESD protection for all serial signals
- Provides rich configuration methods including Windows utility, Telnet console, and Web Browser
- Supports Windows 2000/XP/Vista drivers
- Automatic RS-485 data flow control
- Class I, Division 2 certification

## Introduction

EKI-1521, EKI-1522 and EKI-1524 feature two independent Ethernet ports and MAC addresses to provide a redundant network mechanism to guarantee Ethernet network reliability. EKI-1521, EKI-1522 and EKI-1524 are serial device servers that connect RS-232/422/485 serial devices, such as PLC, meters, sensors, and barcode reader to an IP-based Ethernet LAN. They allow nearly any device with serial ports to connect and share an Ethernet network. EKI-1521, EKI-1522 and EKI-1524 provide various operations: COM port redirection (Virtual COMport), TCP Server, TCP Client and UDP mode. With COM port redirection mode, standard serial operation calls are transparently redirected to the EKI-1521, EKI-1522 and EKI-1524, guaranteeing compatibility with legacy serial devices and enabling backward compatibility with existing software. With TCP server, TCP client, and UDP modes, EKI-1521, EKI-1522 and EKI-1524 ensure the compatibility of network software that uses a standard network API. Moreover, you can make serial devices communicate with other devices peer-to-peer, without any intermediate host PCs and software programming.

## Specifications

### Ethernet Communications

- Compatibility** IEEE 802.3, IEEE 802.3u
- Speed** 10/100 Mbps
- No. of Ports** 2
- Port Connector** 8-pin RJ45
- Protection** Built-in 1.5 KV magnetic isolation

### Serial Communications

- Port Type** RS-232/422/485, software selectable
- No. of Ports** EKI-1521: 1  
EKI-1522: 2  
EKI-1524: 4
- Port Connector** DB9 male
- Data Bits** 5, 6, 7, 8
- Stop Bits** 1, 1.5, 2
- Parity** None, Odd, Even, Space, Mark
- Flow Control** XON/XOFF, RTS/CTS, DTR/DSR
- Baud Rate** 50 bps ~ 921.6 kbps
- Serial Signals** RS-232: Tx+, Rx-, CTS, RTS, DTR, DSR, DCD, RI, GND  
RS-422: Tx+, Tx-, Rx+, Rx-, GND  
RS-485: Data+, Data-, GND
- Protection** Built-in 15 KV ESD for all signals

### Software

- Driver Support** Windows 2000/XP/Vista
- Utility Software** Advantech Serial Device Server Configuration Utility
- Operation Modes** COM port redirection mode (Virtual COM)  
TCP/UDP server (polling) mode  
TCP/UDP client (event handling) mode  
Pair connection (peer to peer) mode
- Configuration** Windows utility, Telnet console, Web Browser
- Protocol** ICMP, IP, TCP, UDP, BOOTP, DHCP, Auto IP, Telnet, SNMP, HTTP, DNS, SMTP, ARP, NTP
- Management** SNMP MIB-II

### Mechanics

- Dimensions (W x H x D)** EKI-1521/1522: 37 x 140 x 95 mm  
EKI-1524: 55 x 140 x 95 mm
- Enclosure** Metal with solid mounting hardware
- Mounting** DIN-rail, Panel
- Weight** EKI-1521: 592g  
EKI-1522: 600g  
EKI-1524: 668g

### General

- LED Indicators** System: Power, System Status  
LAN: Speed, Link/Active  
Serial: Tx, Rx  
Built-in WDT (watchdog timer)
- Reboot Trigger**

### Power Requirements

- Power Input** 12 ~ 48 V<sub>DC</sub>, redundant dual inputs
- Power Connector** Terminal block
- Power Consumption** EKI-1521: 2 W  
EKI-1522: 2.5 W  
EKI-1524: 4 W

### Environment

- 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)
- Safety** UL (UL60950-1)
- MTBF** EKI-1521: 1,102,913 hrs  
EKI-1522: 1,000,154 hrs  
EKI-1524: 862,230 hrs
- Hazardous Location** UL/cUL Class I, Division 2

## Ordering Information

- EKI-1521** 1-port RS-232/422/485 Serial Device Server
- EKI-1522** 2-port RS-232/422/485 Serial Device Server
- EKI-1524** 4-port RS-232/422/485 Serial Device Server