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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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# EKI-1521/CI/I EKI-1522/CI/I EKI-1524/CI/I

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 up to 921.6 kbps, and any baud rate setting
- 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 multiple configuration methods including Windows utility, Telnet console, and Web Browser
- Supports 32-bit/64-bit Windows 2000/XP/Vista/7/8/8.1, Windows Server 2003/2008/2012, Windows CE 5.0, and Linux
- Automatic RS-485 data flow control
- Supports surge protection for D.C. power ports with line to line 2 KV, and line to earth 4 KV; for signal ports with 4 KV.
- 'I' models support a wide operating temperature
- 'CI' models support isolation and wide operating temperature

## 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
 Speed
 No. of Ports
 IEEE 802.3, IEEE 802.3u
 10/100 Mbps
 2

Port Connector8-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
 Data Bits
 Stop Bits
 DB9 male
 5, 6, 7, 8
 1, 1.5, 2

Parity None, Odd, Even, Space, Mark
Flow Control XON/XOFF, RTS/CTS, DTR/DSR
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**Baud Rate** 50 bps ~ 921.6 kbps, any baud rate setting

 Serial Signals
 RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND RS-422: TxD+, TxD-, RxD+, RxD-, GND

RS-485: Data+, Data-, GND Built-in 15 KV ESD for all signals

'Cl' models: 2KV Isolation for RS-422/485 signals

#### Software

Protection

OS Support
 32-bit/64-bit Windows XP/Vista/7/8/8.1, Windows
 Server 2003/2008/2008 R2/2012/2012 R2, Windows

CE 5.0. and Linux

Utility Software
 Operation Modes
 Advantech EKI Device Configuration Utility
 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

Management SNMP MIB-II

### Mechanics

**Dimensions (W x H x D)** 36.6 x 140 x 95 mm (1.44" x 5.51" x 3.74")

EKI-1524: 48.6 x 140 x 95 mm (1.91" x 5.51" x 3.74")

• **Enclosure** Metal with solid mounting hardware

Mounting DIN-rail, Wall

• Weight EKI-1521: 612g/EKI-1522: 620g/EKI-1524: 690g

#### General

• LED Indicators System: Power, System Status/LAN: Speed, Link/Active

Serial: Tx, Rx

#### **Power Requirements**

Input
 12 ~ 48 V<sub>DC</sub>, redundant dual inputs

Connector Terminal block
 Consumption EKI-1521: 5.2 W
 EKI-1522: 5.2 W
 EKI-1524: 6.3 W

## Environment

• Operating Temperature EKI-1521/EKI-1522/EKI-1524:  $-10 \sim 60^{\circ}\text{C}$  (14  $\sim$  140°F)

'CI & I' models: -40 ~ 70°C (-40 ~ 158°F)

• Storage Temperature  $-40 \sim 85$ °C  $(-40 \sim 185$ °F)

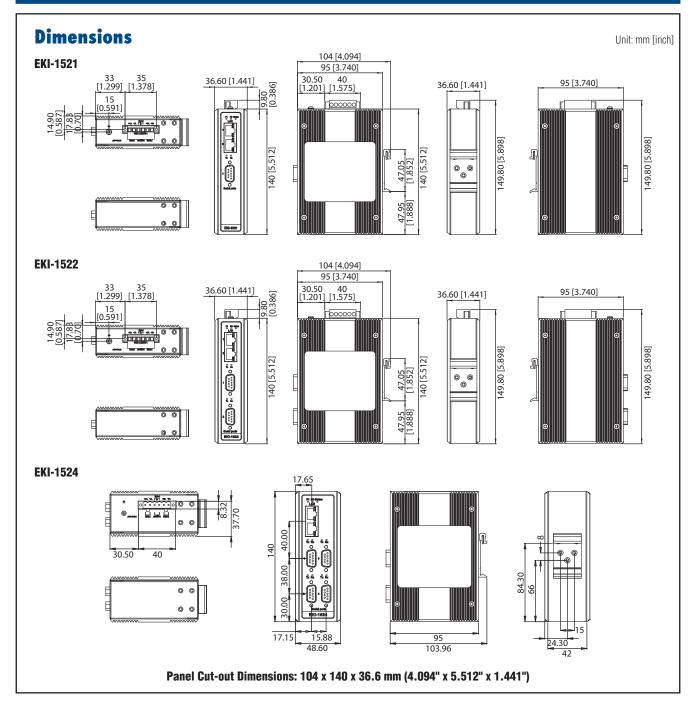
• Operating Humidity 5 ~ 95% RH

#### **Regulatory Approvals**

■ EMC CE, FCC Part 15 Subpart B (Class A)

**ADVANTECH** 

**Industrial Gateway Solutions** 



# **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 EKI-1521I

1-port RS-232/422/485 Serial Device Server with wide operating temperature

EKI-1522I 2-port RS-232/422/485 Serial Device Server with wide operating temperature

EKI-1524I 4-port RS-232/422/485 Serial Device Server with wide operating temperature

EKI-1521CI

EKI-1522CI

EKI-1524CI

OPT1-DB9

1-port RS-422/485 Serial Device Server with wide operation temperature and isolation

2-port RS-422/485 Serial Device Server with wide operation temperature and isolation

4-port RS-422/485 Serial Device Server with wide operation temperature and isolation

D-Sub9 to Terminal Converter