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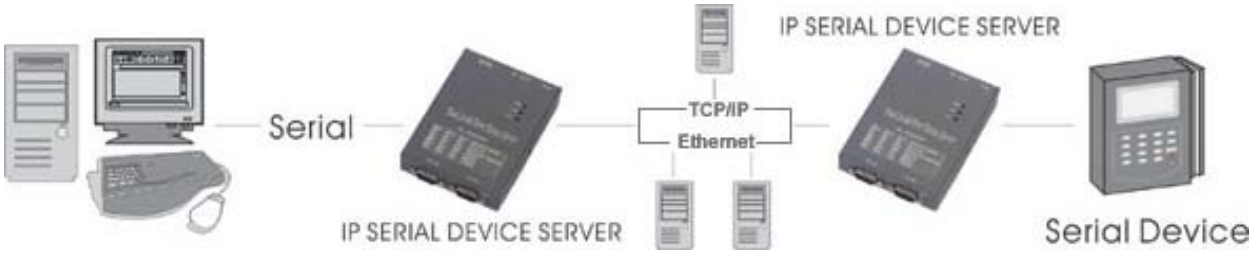
■ EJ-IP101A

» Easy installation / IP to Serial Device Server / Direct IP Mode / Virtual COM Mode



» Easy installation / IP to Serial Device Server / Paired Mode«

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» Introductions

The IP SERIAL SERVER provides the serial device server for Windows hosts to control serial devices located virtually anywhere through a TCP/IP or UDP/IP Ethernet connection. The IP SERIAL SERVER has the asynchronous serial port connection on one side, and a 10/100 Mbps Ethernet connection on the other side. It connects devices, such as CNC, weight scales, and scanners. Applications include industrial/factory automation, automatic warehouse control, and hospital/laboratory automation.

The IP SERIAL SERVER Windows driver is designed to control the IP SERIAL SERVER Ethernet devices. The driver installs a virtual COM on windows which maps the virtual COM port to the IP address of the IP SERIAL SERVER device across the network, enabling the Windows applications to access remote serial devices over Ethernet.

IP SERIAL SERVER can function as a server or client for both TCP and UDP connection. The application scenarios are direct IP mode, virtual COM mode, and paired mode. In direct IP and virtual COM modes, IP SERIAL SERVER should only work as a server. When in the paired mode one IP SERIAL SERVER must set as a client and the other must set as a server in both TCP and UDP connection.

» Direct IP Mode

In direct IP connection, applications can communicate with IP SERIAL SERVER using TCP/IP or UDP/IP socket connection. The raw data in the IP packet will be transferred from and to IP SERIAL SERVER' serial port.

» Virtual COM Mode

In the virtual COM mode, the host connects to IP SERIAL SERVER through 10/100 Ethernet. The serial device is then connected to IP SERIAL SERVER.

Applications work just as if the serial device is connected to host's COM port, however it is a virtual COM port that convert application's data into IP packet. IP SERIAL SERVER then converts the IP packet back to serial data. In this mode, IP SERIAL SERVER must set to either TCP/server or UDP/server. The virtual COM driver is a TCP or UDP client. A security feature is built in IP SERIAL SERVER. When IP SERIAL SERVER works as a server it will allow incoming connection only when remote IP address passes its IP address filtering. For more detail, please look at the section, Configuring IP SERIAL SERVER.

» Paired Mode

Paired mode is also called serial tunneling. Two IP SERIAL SERVER are involved and they must be set to a client and server pair. The remote IP address of the client site must be the same as server's IP address and IP address of the client site must pass server's address filtering. Applications do not actually use virtual COM port. They use the regular COM port and host connects to IP SERIAL SERVER through a null modem cable as shown below. The paired mode is a quick method to convert a serial connection into an Internet connection without installing any other software on the host.

» Heart Beat

The Heart Beat protocol connection provides a reliable communications connection in Virtual COM Port Mode or with Paired Connection Mode. This feature restores the connection if communications are temporarily lost at either end due to loss of power or Ethernet connection.

Without this feature a device that loses a connection and stops communicating would not be able to reconnect without human intervention. A TCP data connection can be lost when there is a power failure or temporary loss of an Ethernet connection on either the client or server. If a loss occurs the Heart Beat feature will try to reconnect the TCP data connection every five seconds until communications is established again. The Heart Beat feature is available for use in Virtual COM Port Mode and Paired Connection Mode. This is not available when using a UDP application.

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Specification

General	
LED: Power, Link, Ready, TX/RX	Yes
Dip Switch: select Console or Normal	Yes
Push button for Reset	Yes
OS supported: Windows XP/2000/NT/98/ME	Yes
Serial Interface	
Serial Port Mode	
RS-232	Yes
RS-422F	Yes
RS-485H	Yes
Serial Connector	Yes
DB-9 male	Yes
Baudrate(110 to 230.4Kbps, 5787pbs)	Yes
Data bits (5, 6, 7, 8)	Yes
Stop bits (1, 1, 5, 2)	Yes
Parity (None, Even, Odd, Space, Mark)	Yes
Flow Control (None, RTS/CTS, Xon/Xoff)	Yes
Data Packing Delimiter 1 and 2	Yes
Forced Transmit	Yes
LAN Interface	
RJ-45 connector	Yes
IEEE802.3 10/100BaseT	Yes
Auto-detecting	Yes
Full/Half-duplex selectable	Yes
Communication Modes	
TCP Server	Yes
TCP Client (w/ Heartbeat)	Yes
TCP Client (no Heartbeat)	Yes
Virtual COM mode	Yes
Winsock mode	Yes
UDP	Yes
Paired Mode	Yes
WinSock Lib. API	Yes

Protocols	
TCP, UDP, IP, ARP, ICMP, HTTP, Telnet, DHCP	Yes
UDP Multicast	Yes
Client requests connection at Power up or Data arrival	Yes
TCP Inactivity Time (TCP alive time)	Yes
Serial Inactivity Time	Yes
Multiple TCP Client Connections	8 per port
Port Monitoring	Yes
Management	
Console	Yes
Telnet	Yes
Web pages	Yes
Remote Manager	Yes
Firmware upgrade	Yes
Web pages upgrades	Yes
Import/Export Configurations file	Yes
Export Configurations to multiple units	Yes
Security	
Password Access	Yes
IP Address Filtering	Yes
Power & Environment	
DC Input	12VDC, 300mA, 500mA
Operating Temperature	-10 to 80 °C
Storage Temperature	-20 to 85 °C
Humidity 0 – 90% non-condensing	Yes
Certifications	
CE, FCC	Yes
Mechanic	
Case -- IP30 Metal/aluminum	Yes
Metal Housing	Yes
DIN rail mount	Yes
Panel mount	Yes
Dimensions (mm)	120(W)X85(L)X23(H)

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