

Aport-311/312

High Speed Serial-to-Ethernet Gateway



Key Features

- Allow users access RS-232/422/485 serial devices over Ethernet network
- 10/100Mbps Ethernet port
- Up to 230.4Kbps serial data rate
- Support versatile Direct-IP operation modes including TCP/Server mode, TCP/Client mode, UDP mode and paired connection mode
- Virtual COM driver for Windows
- Unique heart-beat checking mechanism providing a more reliable TCP connection
- Operation parameters can be set via serial console, Telnet console or web-based console
- Powerful Windows utility to perform device searching, configuration and management in an integrated environment
- Firmware upgradeable
- Wall and DIN-rail mountable

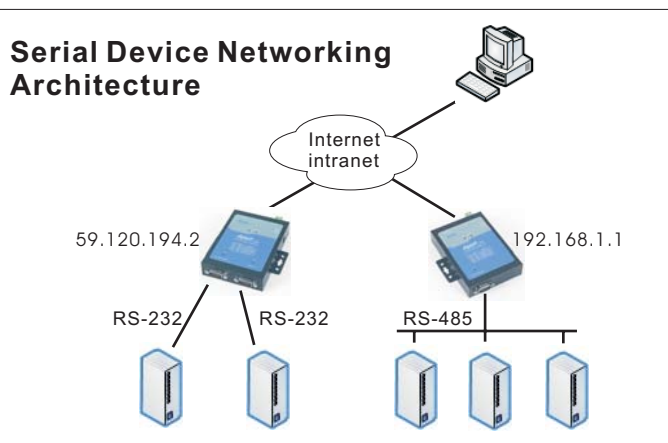
The following serial devices are widely used with Aport-311/312

- Credit-card reader, barcode reader, serial printer, cash register, scale
- Indoor/outdoor bulletin board
- Time clock, fingerprint identification machine, security/access controller
- Medical equipment
- Electrical power meter
- Test and measurement instrument
- PLC, RTU, UPS, A/V device
- And more



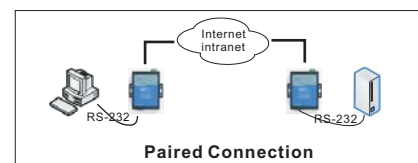
Introduction

The Aport-311/312 Serial-to-Ethernet gateways are designed for applications requiring quick, reliable and seamless integration of existing RS-232/422/485 devices to an Ethernet network. The Aport-311/312 provide one and two serial ports respectively. Each serial port on the Aport-311/312 has a unique IP address and a port number for socket-based communication (Direct-IP mode). Alternatively, each serial port on the Aport-311/312 can be mapped as a local COM port on the remote host computer for traditional serial communication (Virtual COM mode).



Direct-IP Modes for Socket-based Communication

The Aport-311/312 support socket-based communication, and can behave as a TCP server, a TCP client or an UDP node on a Ethernet network to fulfill versatile application requirements. Also, the Aport-311/312 can be used in the paired connection mode, which will establish a virtual data tunnel over Ethernet network simulating a local peer-to-peer serial connection between computer and device.



Virtual COM Mode for Serial Communication

Also, the Aport-311/312 provides a Virtual COM driver for Windows environment to make the serial ports on the Aport-311/312 function as local COM ports on the remote host computer. With the Virtual COM driver, no software modification is needed to take advantage of Ethernet networking. Just keep the way you work as before.

Heart-beat Checking for More Reliable TCP Connection

To provide a more reliable TCP communication between computer and device, the Aport-311/312 features an unique Heart-beat checking mechanism which will try to re-establish the TCP connection every 5 seconds if network malfunction occurs caused by network disruption or power failure.

If you are looking for a simple, affordable but robust solution for serial device networking, the Aport-311/312 is the best choice of its kind.

Aport-311/312 Specification

Specifications

Hardware Specifications

- **Ethernet Port**
One port, 10/100 Mbps, RJ45 connector
1.5KV magnetic isolation
- **Serial Ports**
Aport-311: one RS-232/422/485 3-in-1 port
Aport-312: one RS-232/422/485 3-in-1 port, and one RS-232 port
Connector: DB9 male (DTE configuration)
- **Serial Port Signals**
RS-232: full signals, support modem connection
Rx, Tx, RTS, CTS, DSR, DTR, DCD, RI, GND
RS-422: Rx, Tx, RTS, CTS, GND
RS-485: Data+, Data-, GND
Protection: 15KV ESD for all signals
- **Serial Port Parameters**
Baud Rate: 110bps to 230.4 Kbps
Parity: None, Even, Odd, Mark, Space
Data Bits: 5, 6, 7, 8
Stop Bit: 1, 1.5, 2 bits
Flow Control: RTS/CTS, XON/XOFF, None
- **Power input:** 9~15VDC
- **Power consumption:** 400mA@12VDC
- **Dimension:** 85x115x23mm (3.35x4.5x0.90 in))
- **Operation Temperature**
0 to 50°C(32 to 122°F), 5 to 95% RH
- **Regulation**
CE Class A, FCC Class A

Software Specifications

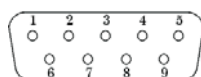
- **Protocols**
IP, ARP, ICMP, TCP, UDP, DHCP, HTTP, Telnet
- **Direct-IP modes**
TCP/Server, TCP/Client, UDP modes, and paired connection mode
- **Virtual COM mode**
support for Windows XP/2K/98 and NT4.0
- **Heart-beat Checking**
port 5300 is reserved for hear-beat checking
- **Management:** Serial console, Telnet console
Web console and Windows management utility

Ordering Information

- Aport-311
Single-port Serial-to-Ethernet gateway
- Aport-312
Dual-port Serial-to-Ethernet gateway

Pin Assignment

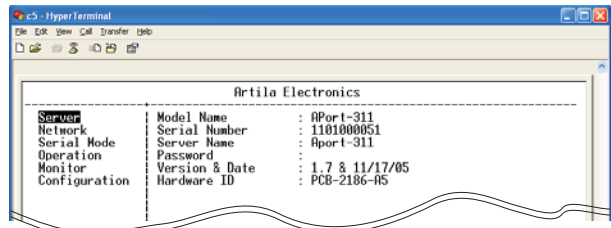
PIN	RS-232	RS-422	RS-485
1	DCD	Rx -	---
2	Rx	Rx+	---
3	Tx	Tx+	Data+
4	DTR	Tx -	Data -
5	GND	GND	GND
6	DSR	CTS -	---
7	RTS	CTS+	---
8	CTS	RTS+	---
9	RI	RTS -	---



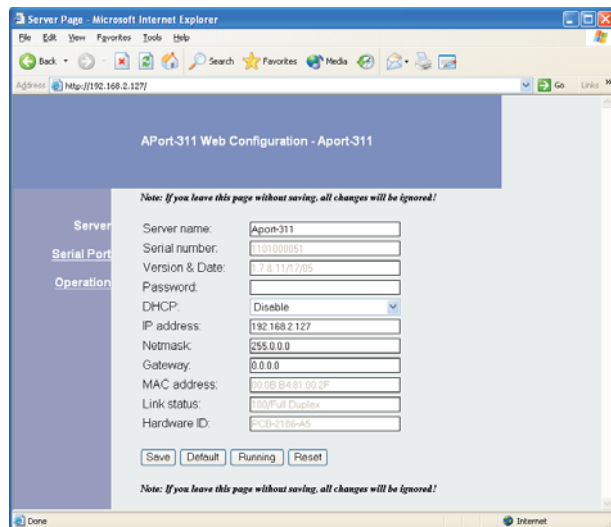
DB9 Male

Management Console/Utility

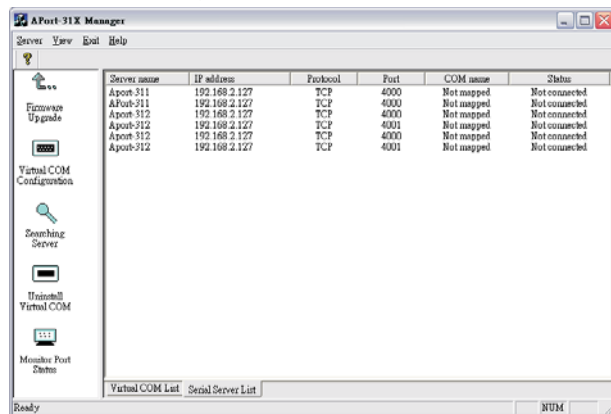
Menu-driven Serial/Telnet Console



Web Management Console



Windows Management Utility



Virtual COM Installed

