ADAM-4577
1-port Universal Serial Device Gateway

ADAM-4579
2-port Universal Serial Device Gateway

Features

- Supports 10/100 Base-T (ADAM-4579); 10 Base-T (ADAM-4577) Ethernet standard
- Supports standard networking API: WinSock, Socket
- Provides multiple networking architectures: polling, event handling, peer-to-peer
- Supports several AT-style commands to control (ADAM-4579)
- Allows most 8 host PCs to access with UDP Protocol (ADAM-4577)
- Supports any operating system with TCP/IP protocol: Windows, Linux etc.
- Auto-searching Windows configuration utility
- Download and testing utility: Easy to download firmware and self-diagnostic
- Easy to locate specific EDG series
- Surge protection for RS-485 line and power supply
- Mounts on DIN rail, panel or piggyback easily

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Introduction

The ADAM-4577/4579 are universal serial device gateways that bring RS-232/422/485 to Ethernet. They allow nearly any device with serial ports to connect to the Ethernet and share networks quickly. The ADAM-4577/ADAM-4579 provides a quick, simple and cost-effective way to bring the advantages of remote management and data accessibility to thousands of devices that cannot connect to a network.

With the ADAM-4577/ADAM-4579, your existing serial devices can be used in the most popular operating systems. There is no need to write special drivers for specific operating systems. Moreover, ADAM-4577/4579 allows the serial device to communicate with other devices peer-to-peer, without any intermediate host PCs and software programming. That saves a lot of cost and effort. In addition, you can actively request data or issue commands from the RS-232/422/485 side or Ethernet side. This data can be sent bilaterally. Thus, the ADAM-4577/4579 is especially suitable for remote monitoring environments such as security systems, factory automaton, SCADA, transportation and more.

For fulfilling the different applications that connect to networks, the ADAM-4577 provides 4 types of network architectures: Polling, Event-handling, peer-to-peer, multi-host access (UDP protocol); and the ADAM-4579 provides 4 types of network architectures: Polling, Event-handling, peer-to-peer, and Controlling.

Specifications

- **Protocol** TCP/IP (ADAM-4579)
  TCP/IP, UDP (ADAM-4577)
- **Standard Networking API** WinSock, Socket
- **Network Type** ADAM-4577: polling, event handling, peer-to-peer, multi-host access
  ADAM-4579: polling, event handling, peer-to-peer, controlling
- **Network Port** IEEE 802.3, IEEE 802.3u
- **Interface** Network: 10Base-T (ADAM-4577); 10/100Base-T (ADAM-4579)
  Serial: 3-wire RS-232, RS-422, RS-485
- **Port** ADAM-4577: 1 independent RS-232/422/485 port
  ADAM-4579: 2 independent RS-232/422/485 ports
- **Connector** Network: RJ-45
  Serial: ADAM-4577: DB-9
  ADAM-4579: RJ-48 (RJ-48 to DB-9 cable provided)
- **Transmission Speed** 30 bps to 230 Kbps
- **Parity Bit** Odd, even, none, space, mark
- **Data Bit** 5, 6, 7, and 8
- **Stop Bit** 1, 1.5, and 2
- **Diagnostic LEDs** Network: TX/RX, Link, Speed (10/100 Mbps), Power
  Serial: TX/RX, Status
- **Utility Software** Auto-detecting configuration utility
  Easy-to-diagnose download & testing utility
  UDP testing utility (ADAM-4577)
- **Power Requirements** Unregulated 10 ~ 30 V_{DC} with surge protection

- **Power Consumption** 2 W (ADAM-4577); 4 W (ADAM-4579)
- **Placement** DIN-rail, panel mounting, piggyback stack

Environmental Specifications

- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F)
- **Storage Temperature** -20 ~ 80° C (-4 ~ 176° F)
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)

Ordering Information

- **ADAM-4577** 1-port Universal Serial Device Gateway
- **ADAM-4579** 2-port Universal Serial Device Gateway (RJ-48 to DB9 cable, 1 m)
- **Opt1A** RJ-48 to male RS-232/422/485 male cable, 1 m

ADVANTECH **eConnectivity Solutions**

ADAM-4577
ADAM-4579

1
IPPC & AWS

2
TPC

3
FPM

4
ATM

5
DA&C

6
cPCI

7
ADAM-3000

8
eConnectivity

9
ICOM

10
Software

11
UNO-2000/3000

12
VBOX

13
ADAM-4000

14
ADAM-5000

15
ADAM-6000

16
ADAM-8000

Feature Details

Peer-to-peer Transmission of Data without PC and Extra Software

In peer-to-peer mode, data can be sent/received between two networking devices directly without PCs. Users can add two ADAM-4577/4579's on both serial sides and transmit data from one serial device to another via Ethernet. Serial devices don't need to be bundled with PCs. To increase the performance of whole systems, the data can be sent to the devices that urgently need it.

Actively Event /Alarm Handle

In the event-handling mode, if an event or alarm occurs from serial devices, it will be immediately sent to the designated device via Ethernet. Thus, it can reduce the load of the host PC and increase the performance of the Ethernet.

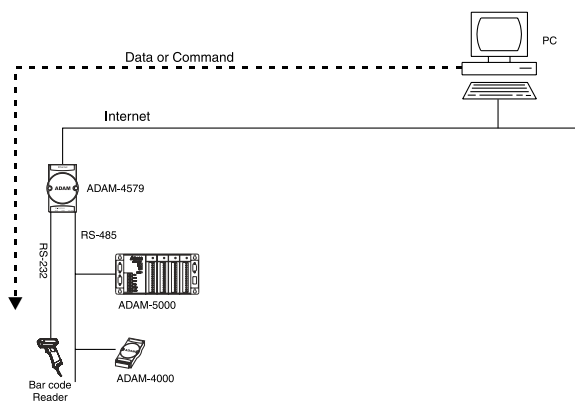### Dynamically Build Up the Connection from Device to Device (ADAM-4579 only)

In controlling mode, the ADAM-4579 acts as a modem to the attached serial device. It provides several modem AT-style commands in order for serial devices to connect to different networking devices dynamically. This saves a lot of programming effort and increases the performance during data exchanges.
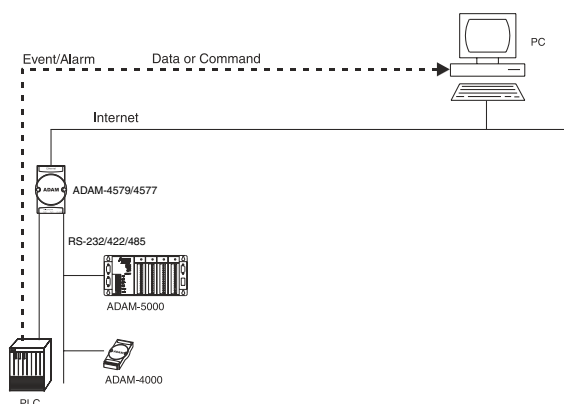
Multi-host Access (ADAM-4577 only)

ADAM-4577 supports UDP protocol, it allows most 8 host PC accessing data simultaneously. Via polling networking architecture. You can use UDP protocol in your applications to access the derices at the same time.
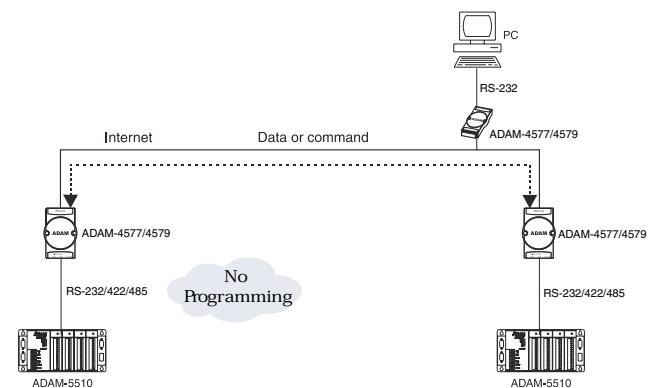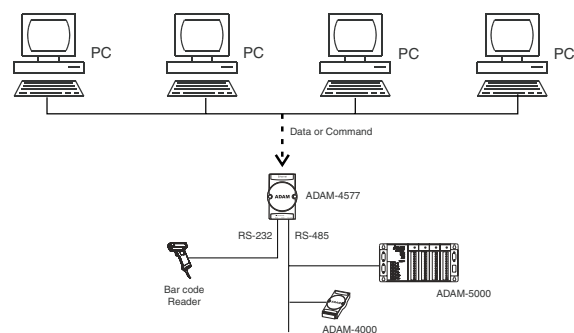
Network Architectures

Polling Network Architecture

Peer-to-peer Network Architecture

Event-handling Network Architecture

Multi-host access (UDP Protocol)