Industrial Ethernet Data Gateways

Connect Your Devices to the eWorld

Introduction

As the world becomes more and more wired, it becomes critical to manage and connect devices. Advantech offers a comprehensive and cost-effective eConnectivity solution for easy installation and operation in critical industrial environments. This solution fulfills all requirements from worldwide enterprises that need supervisory control, operator interfaces, and logging of events and alarms via serial communication over Ethernet networks.

Advantech's eConnectivity Solution is Divided into 3 Parts:

- Ethernet data gateways
- Web-enabled communication controllers
- Serial media converters

Ethernet Data Gateways

Ethernet data gateways enable RS-232/422/485 serial devices to be connected to a host computer over an Ethernet network quickly and cost-effectively. No extra programming effort is required at the host computer, so software development costs can be saved. Ethernet data gateways are especially suitable for remotely controlling and monitoring your serial devices via Ethernet.

RS-232/422/485 to Ethernet Universal Data Gateways

Universal Serial Device Gateways allow RS-232/422/485 serial devices to connect to Ethernet networks and operate as Ethernet nodes. Through TCP, UDP, IP, Socket or Winsock, Universal Serial Device Gateways can be used for different operating systems ranging from Microsoft Windows to Linux. Moreover, serial devices can use peer-to-peer communication without any intermediate host PCs and software programming to save costs and effort.

Modbus to Ethernet Data Gateways

The ADAM-4572 Modbus gateway serves as an interface between Modbus serial devices and computer hosts running Modbus/TCP on Ethernet networks. Fully compliant with Modbus/TCP, the ADAM-4572 offers a convenient solution to connect existing devices or controllers running Modbus serial protocol (Modbus/ASCII or Modbus/RTU) to an Ethernet network.

USB to Serial Data Gateways

The industrial-grade USB to serial converters(ADAM-4561/4562, USB-4602B/4602BM/4604B/4604BM) are especially suitable for wide variety of industries such as banking, retail, factory automation, and industrial automation. USB to serial converter provide software selectable RS-232/422/485 port that are compatible with all standard RS-232 or RS-422/485 devices and suitable for printers, POS system, and industrial control devices. Use them to expand your serial ports fast, easily, and cost-effectively.
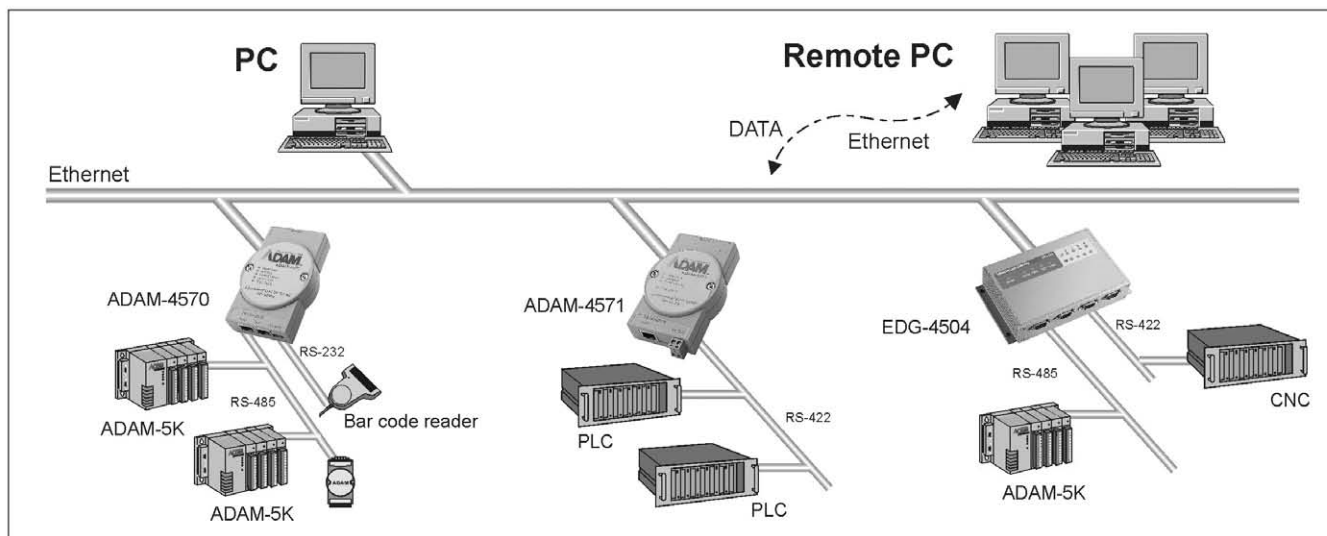
EDG System Architecture

ADVANTECH **Industrial Ethernet Data Gateways**

Industrial Networking Selection Guide

Ethernet Data Gateways

Model Name	Interface	Serial Port	Serial Type	Baud Rate	Connector		Operation Mode	Driver
					Network	Serial		
ADAM-4571	10/100Mbps	1	RS-232/422/485	50 ~ 230 kbps	RJ-45	RJ-48	Virtual COM	Windows NT/2000/XP
ADAM-4571L	10/100Mbps	1	RS-232	50 ~ 230 kbps	RJ-45	RJ-48	Virtual COM	Windows NT/2000/XP
ADAM-4570	10/100Mbps	2	RS-232/422/485	50 ~ 230 kbps	RJ-45	RJ-48	Virtual COM	Windows NT/2000/XP
ADAM-4570L	10/100Mbps	2	RS-232	50 ~ 230 kbps	RJ-45	RJ-48	Virtual COM	Windows NT/2000/XP
EDG-4504	10/100Mbps	4	RS-232/422/485	50 ~ 230 kbps	RJ-45	DB9	Virtual COM	Windows NT/2000/XP
EDG-4508(R)+	10/100Mbps	8	RS-232/422/485	50 ~ 230 kbps	RJ-45	RJ-48	Virtual COM, TCP/UDP server mode, TCP/UDP client mode	Windows NT/2000/XP
EDG-4516(R)+	10/100Mbps	16	RS-232/422/485	50 ~ 230 kbps	RJ-45	RJ-48	Virtual COM, TCP/UDP server mode, TCP/UDP client mode	Windows NT/2000/XP
ADAM-4572	10/100Mbps	1	RS-232/422/485	300 ~ 115.2 kbps	RJ-45	RJ-48	Modbus/TCP	Socket or WinSocket
ADAM-4577	10Mbps	1	RS-232/422/485	50 ~ 230 kbps	RJ-45	RJ-48	TCP/UDP server mode, TCP/UDP client mode	Socket or WinSocket
ADAM-4579	10/100Mbps	2	RS-232/422/485	50 ~ 230 kbps	RJ-45	RJ-48	TCP/UDP server mode, TCP/UDP client mode	Socket or WinSocket

Wireless Data Gateways

Model Name	Interface	Serial Port	Serial Type	Baud Rate	Connector	Operation Mode	Driver
ADAM-4571W	802.11b/g	1	RS-232/422/485	50 ~ 230 kbps	RJ-48	Virtual COM	Windows NT/2000/XP
ADAM-4570W	802.11b/g	2	RS-232/422/485	50 ~ 230 kbps	RJ-48	Virtual COM	Windows NT/2000/XP
ADAM-4577W	802.11b/g	1	RS-232/422/485	50 ~ 230 kbps	RJ-48	TCP/UDP server mode, TCP/UDP client mode	Socket or WinSocket
ADAM-4579W	802.11b/g	2	RS-232/422/485	50 ~ 230 kbps	RJ-48	TCP/UDP server mode, TCP/UDP client mode	Socket or WinSocket

USB to Serial Data Converters

Model Name	Interface	Serial Port	Serial Type	Baud Rate	Connector		Protection		Driver
					USB	Serial	Isolation	Surge	
ADAM-4561	USB 1.1	1	RS-232/422/485	50 ~ 115.2 kbps	Type B	Screw terminal	3000 V_{DC} (RS-232/422/485)	3000 V_{DC} (RS-485)	Windows NT/2000/XP
ADAM-4562	USB 1.1	1	RS-232	75 ~ 115.2 kbps	Type B	DB9	2500 V_{DC}	-	Windows NT/2000/XP
USB-4602B	USB2.0	2	RS-232	50 ~ 921kbps	Type B	DB9	-	3000 V_{DC}	Windows NT/2000/XP/2003, Linux
USB-4602BM	USB2.0	2	RS-232/422/485	50 ~ 921kbps	Type B	DB9	-	3000 V_{DC}	Windows NT/2000/XP/2003, Linux
USB-4604B	USB2.0	4	RS-232	50 ~ 921kbps	Type B	DB9	-	3000 V_{DC}	Windows NT/2000/XP/2003, Linux
USB-4604BM	USB2.0	4	RS-232/422/485	50 ~ 921kbps	Type B	DB9	-	3000 V_{DC}	Windows NT/2000/XP/2003, Linux

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

Wireless Gateway Application Modules

Wireless Data Gateways

Advantech's Wireless Data Gateways ADAM-4570W and ADAM-4571W make it possible to quickly connect RS-232/422/485 serial devices with PC hosts over 802.11g wireless LAN networks. Functionally transparent and efficient, ADAM-4570W and ADAM-4571W saves costs when existing H/W & S/W must continue to be used and also bring the advantages of remote management and data accessibility to RS-232/422/485 devices that cannot connect to the network.

Problem Free Wireless

Wireless technology allows ADAM-4570W and ADAM-4571W overcome physical limitations and problems saving you installation and maintenance costs. Wireless ADAM-4570W and ADAM-4571W are also suitable for mobile applications.

64/128-bit WEP Protection

ADAM-4570W and ADAM-4571W provides 64/128-bit WEP (Wired Equivalent Privacy) to protect your data from hackers trying to steal your valuable data. This function guarantees a safe and reliable transmission of the wireless connection between your host and the serial device.

Flexibility

When your production line or processes change, your production facilities must also change. Wiring must be replaced or re-routed to accommodate the changes. With wireless technology, you could configure your whole system without any interrupt and stop, ADAM-4570W and ADAM-4571W actually bring your system convenience and flexibility and make your management easier and more efficient.

Wireless Data Gateway System Architecture
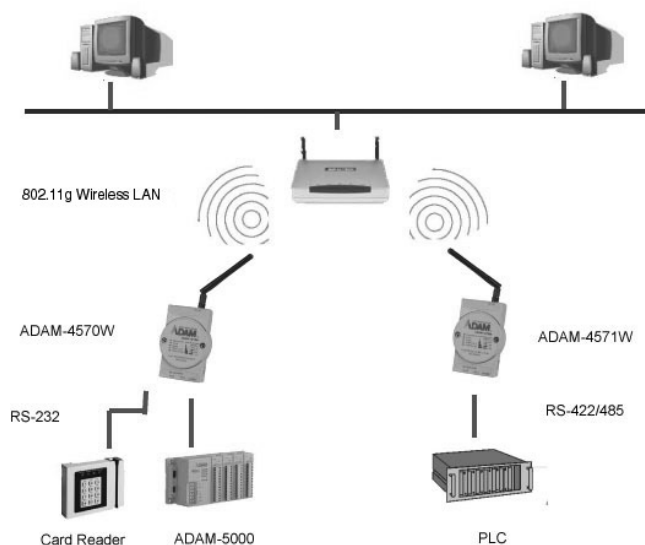
The Wireless Universal Serial Device Gateway

ADAM-4579W and ADAM-4577W are cost effective RS-232/422/485 wireless universal serial device gateway. There is no need to write special driver fo specific operating system. Moreover, you can make serial device communicate with other devices peer-to-peer, without any intermediate host PC and software programming.
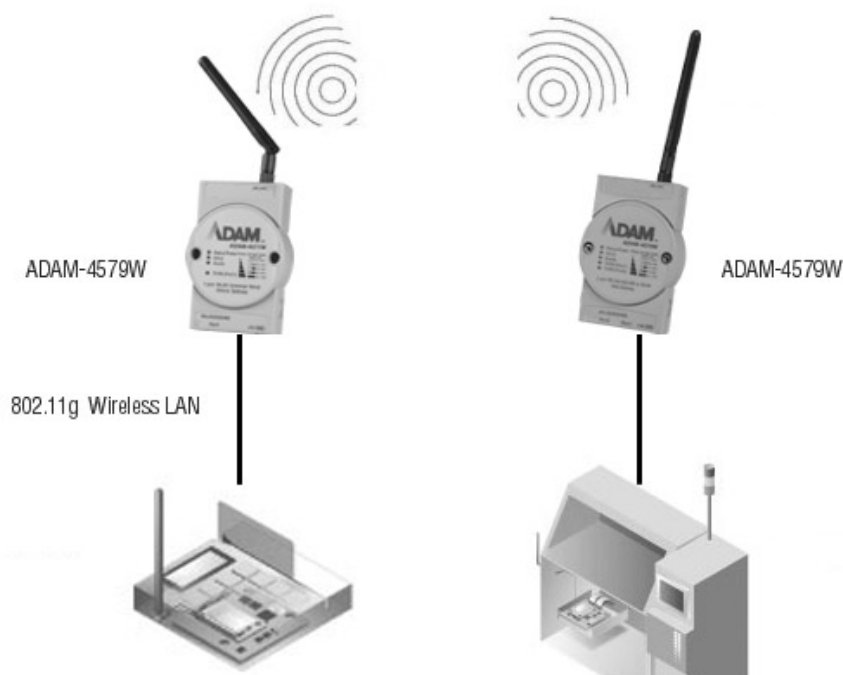
ADAM-4570W
ADAM-4571W

2-port RS-232/422/485 to 802.11b/g WLAN Data Gateway

1-port RS-232/422/485 to 802.11b/g WLAN Data Gateway

NEW

CE FCC

Features

- Supports 802.11g and 802.11b
- Supports Wireless LAN Ad-Hoc and Infrastructure modes
- Supports high transmission speeds up to 230 kbps
- Supports an advanced security mechanism to avoid unauthorized access
- Auto-reconnection
- Remote download firmware
- Auto-detecting
- Easy-managing Port Mapping Utility
- Supports Windows® NT/2000/XP drivers
- Surge protection for serial signals
- Automatic RS-485 data flow control

Introduction

ADAM-4570W and ADAM-4571W are a cost-effective data gateway between RS-232/422/485 and 802.11 b/g Wireless LAN interfaces. Functionally transparent and efficient, ADAM-4570W and ADAM-4571W save costs when existing H/W & S/W must continue to be used. ADAM-4570W and ADAM-4571W bring the advantages of remote management and data accessibility to thousands of RS-232/422/485 devices that cannot connect to the network.

ADAM-4570W and ADAM-4571W provide one or two RS-232/422/485 serial ports, and the transmission speed is up to 230 kbps, meeting the demand for high-speed data exchange. In addition, you can use a Windows utility to configure ADAM-4570W and ADAM-4571W without further programming. This not only protects your current hardware investment but also ensures future network expandability. Since the protocol conversion is transparent, all your existing devices can be seamlessly integrated with the 802.11g/b wireless LAN network. Therefore, ADAM-4570W and ADAM-4571W can be used in security systems, factory automation, SCADA, transportation and more.

Specifications

Ethernet Communications
- **Compatibility** IEEE 802.11g and 802.11b
- **Speed** 54/11 Mbps
- **Connectors** Wireless

Serial Communications
- **Type** RS-232/422/485
- **Connectors** ADAM-4570W: 2 x RJ-48, ADAM-4571W: 1 x RJ-48
- **Ports** ADAM-4570W: 2, ADAM-4571W: 1
- **Data Bits** 5, 6, 7, 8
- **Stop Bits** 1, 1.5, 2
- **Parity Bits** Odd, even, none, space, mark
- **Baud Rate** 50 bps ~ 230 kbps
- **Data Signals** RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND
  RS-422: TxD+, TxD-, RxD+, RxD-, GND
  RS-485: Data+, Data-, GND

Protection
- **Surge Protection** 15 kV$_{ESD}$

Software
- **Driver Supported** Windows NT/2000/XP
- **Utility Software** Auto-detecting configuration utility (up to 128 devices)
  Port mapping utility
- **Operation Modes** Virtual COMport
- **Configuration** Configuration utility
  Port mapping utility

Mechanics
- **Dimensions (H x W x D)** 70 x 130 x 30 mm
- **Enclosure** ABS+PC with solid mounting hardware
- **Mounting** DIN-rail, stack, wall

General
- **Certifications** CE, FCC class B
- **LED Indicators** WLAN: Active, Quality
  Serial: Tx, Rx
  System: Status, Power

Power
- **Power Input** Unregulated 10 to 30 V$_{DC}$
- **Power Consumption** 4 Watt

Environment
- **Operating Temperature** 0 ~ 55° C (32 ~ 131°F)
- **Storing Temperature** -20 ~ 80° C (-4 ~ 176°F)
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)

Ordering Information

- **ADAM-4571W-AE** 1-port RS-232/422/485 to WLAN Data Gateway (802.11b) (1 pcs of 1m RJ-48 to male DB9 RS-232/422/485 cable included)
- **ADAM-4570W-AE** 2-port RS-232/422/485 to WLAN Data Gateway (802.11b) (2 pcs of 1m RJ-48 to male DB9 RS-232/422/485 cable included)
- **ADAM-4571W-BE** 1-port RS-232/422/485 to WLAN Data Gateway (802.11b/g) (1 pcs of 1m RJ-48 to male DB9 RS-232/422/485 cable included)
- **ADAM-4570W-BE** 2-port RS-232/422/485 to WLAN Data Gateway (802.11b/g) (2 pcs of 1m RJ-48 to male DB9 RS-232/422/485 cable included)

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

ADAM-4579W
ADAM-4577W

2-port RS-232/422/485 to 802.11b/g WLAN Universal Device Gateway

1-port RS-232/422/485 to 802.11b/g WLAN Universal Device Gateway

NEW

Features

- Supports 802.11g and 802.11b
- Supports Wireless LAN Ad-Hoc and Infrastructure modes
- Supports standard networking API: WinSock, Socket
- Provides multiple networking architectures: polling, event handling, peer-to-peer
- Supports several AT-styleCommands control mode
- Allows a maximum of 8 host PCs to access with command response mode using UDP protocol
- 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
- Mounts on DIN-rail, panel or piggyback easily

CE   FCC

Introduction

ADAM-4577W and ADAM-4579W are universal serial device gateways that bring RS-232/422/485 to wireless Ethernet. They allow nearly any device with serial ports to connect and share an Wireless Ethernet network. ADAM-4577W and ADAM-4579W provide 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 ADAM-4577W or ADAM-4579W, your existing serial devices can be used with the most popular operating systems on the market. There is no need to write special drivers for specific operating systems. Moreover, you can make serial devices 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 Wireless Ethernet side. This data can be sent bilaterally. Thus, the ADAM-4577W and ADAM-4579W are especially suitable for remote monitoring environments such as security systems, factory automaton, SCADA, transportation and more.

Specifications

Ethernet Communications

- **Compatibility**   IEEE 802.11g and 802.11b
- **Speed**   54/11 Mbps
- **Connectors**   Wireless

Serial Communications

- **Type**   RS-232/422/485
- **Connectors**   ADAM-4577: 1 x RJ-48
  ADAM-4579: 2 x RJ-48
- **Ports**   ADAM-4577: 1
  ADAM-4579: 2
- **Data Bits**   5, 6, 7, and 8
- **Stop Bits**   1, 1.5, and 2
- **Parity Bits**   Odd, even, none, space, mark
- **Baud Rate**   30 bps ~ 230 kbps
- **Data Signals**   RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND
  RS-422: TxD+, TxD-, RxD+, RxD-, GND
  RS-485: Data+, Data-, GND

Software

- **Utility Software**   Auto-detecting configuration utility (up to 256 devices)
  Easy-to-diagnose download & testing utility
  UDP testing utility
- **Operation Modes**   TCP Server (polling)
  TCP Client (event handling)
  Pair connection (Peer to Peer)
  UDP command response mode (multi-host)
  AT-Style Commands control mode
- **Configuration**   Configuration utility

Mechanics

- **Dimensions (H x W x D)** 70 x 130 x 30 mm
- **Enclosure**   ABS+PC with solid mounting hardware
- **Mounting**   DIN-rail, stack, wall

General

- **Certifications**   CE, FCC class B
- **LED Indicators**   System: Power, status
  WLAN: Active, Quality
  Serial: TX/RX

Power

- **Power Input**   Unregulated 10 ~ 30 V_{DC}
- **Power Consumption**   ADAM-4577W: 2 W
  ADAM-4579W: 4 W

Environment

- **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-4577W**   1-port RS-232/422/485 to 802.11 b/g WLAN Universal Device Gateway (1 pcs of 1m RJ-48 to male DB9 RS-232/422/485 cable included)
- **ADAM-4579W**   2-port RS-232/422/485 to 802.11 b/g WLAN Universal Device Gateway (2 pcs of 1 m RJ-48 to male DB9 RS-232/422/485 cable included)
- **OPT1A**   1m RJ-48 to male DB9 RS-232/422/485 cable
- **OPT1D**   30cm RJ-48 to male DB9 RS-232/422/485 cable

ADAM-4571/4571L

1-port Serial to Ethernet Data Gateway

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

Features

- Supports RS-232/422/485 serial communication (ADAM-4571)
- Supports RS-232 serial communication (ADAM-4571L)
- Supports 10/100Base-T Ethernet port
- Supports high transmission speeds up to 230 kbps
- Supports an advanced security mechanism to avoid unauthorized access
- Auto-reconnection
- Remote updating firmware
- Easy management with port Mapping Utility
- Supports Windows® NT/2000/XP drivers
- Surge protection for serial line signals
- Automatic RS-485 data flow control (ADAM-4571)

CE FCC

Introduction

ADAM-4571 and ADAM-4571L are fast and cost effective data gateways between serial and Ethernet interfaces. The units also bring the advantages of remote management and data accessibility to RS-232/422/485 devices. The transmission speed of the units is up to 230 kbps, meeting the demands for high-speed data exchanges. In addition, you can use Windows utility to configure ADAM-4571 and ADAM-4571L without further programming. The units not only protect your current hardware investment but also ensure future network expandability. Since the protocol conversion is transparent, all your existing devices can be seamlessly integrated with an Ethernet network. Therefore, ADAM-4571 and ADAM-4571L can be used in security systems, factory automation, SCADA, transportation and more. ADAM-4571 and ADAM4571L link both your existing human-machine interface(HMI) PC and your RS-232/422/485 devices with Ethernet cables.

ADAM-4571 and ADAM-4571L come with a Windows configuration and port-mapping utility. The configuration tool can auto-detect all Ethernet Data Gateway devices on the local network, and let you adjust all settings. The port mapping utility helps you to setup up COM ports for Windows NT/2000/XP platform. This helps you configure all ports to meet your needs.

Specifications

Ethernet Communication

- **Compatibility**   IEEE802.3, IEEE802.3u
- **Speed**   10/100 Mbps
- **Connectors**   1 x RJ-45

Serial Communication

- **Type**   RS-232/422/485 (ADAM-4571)
  RS-232 (ADAM-4571L)
- **Connectors**   1 x RJ-48
- **Ports**   1
- **Data Bits**   5,6,7,8
- **Stop Bits**   1,1.5,2
- **Parity Bits**   Odd,even,none,space,mark
- **Baudrate**   50 bps ~ 230 Kbps
- **Data Signals**   RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND
  RS-422: TxD+, TxD-, RxD+, RxD-
  RS-485: Data+, Data-, GND

Protection

- **Surge Protection**   15 k V_{EDS}

Software

- **Drivers Supported**   Windows NT/2000/XP
- **Utility Software**   Auto-detecting configuration utility (up to 128 devices)
  Port mapping utility
- **Operation Mode**   Virtual COMport
- **Configuration**   Configuration utility
  Port mapping utility

Mechanics

- **Enclosure**   ABS+PC with solid mounting hardware
- **Mounting**   DIN-rail, Panel Mounting, Piggyback stack
- **Dimensions (H x W x D)** 70 x 130 x 30 mm

General

- **Certification**   CE,FCC ClassA
- **LED**   System: Power, Status
  Ethernet: Speed,Link, Tx/Rx
  Serial: Tx, Rx

Power

- **Power Input**   Unregulated 10 ~ 30 V_{DC}
- **Power Consumption**   4 W

Environment

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

Ordering Information

- **ADAM-4571**   1-port RS-232/422/485 to Ethernet Data Gateway
  (1 pc of 1m RJ-48 to male DB9 RS-232/422/485 cable included)
- **ADAM-4571L**   1-port RS-232 to Ethernet Data Gateway
  (2 pcs of 1 m RJ-48 to male DB9 RS-232/422/485 cable included)
- **OPT1A**   1m RJ-48 to male DB9 RS-232/422/485 cable
- **OPT1D**   30cm RJ-48 to male DB9 RS-232/422/485 cable

ADAM-4570/4570L

2-port Serial to Ethernet Data Gateway

Features

- Supports RS-232/422/485 serial communications (ADAM-4570)
- Supports RS-232 serial communication (ADAM-4570L)
- Supports 10/100Base-T Ethernet port
- Supports high transmission speeds up to 230 kbps
- Supports an advanced security mechanism to avoid unauthorized access
- Auto-reconnection
- Remote updating of firmware
- Easy management with Port Mapping Utility
- Supports Windows® NT/2000/XP drivers
- Surge protection for serial line signals
- Automatic RS-485 data flow control (ADAM-4570)

CE FCC

Introduction

ADAM-4570 and ADAM-4570L are fast and cost effective data gateways between serial and Ethernet interfaces. They immediately upgrade your existing device(s) to the Ethernet world. Functionally transparent and efficient, ADAM-4570 and ADAM-4570L are specially designed for remote control and monitoring of devices via the Internet.

Two serial ports can each be easily configured for your needs. There is also support for transmission speeds up to 230 kbps, which meets the demand for today's high-speed data exchanges. You can use a Windows utility to configure the units without need for further programming. ADAM-4570 and ADAM-4570L not only protect your current hardware investment but also ensure future network expandability. Since the protocol conversion is transparent, all existing devices can be seamlessly integrated into the Ethernet network. Therefore, ADAM-4570 and ADAM-4570L can be used in security systems, factory automation, SCADA, transportation and more.

Specifications

Ethernet Communications

- **Compatibility**   IEEE802.3, IEEE802.3u
- **Speed**   10/100 Mbps
- **Connectors**   1 x RJ-45

Serial Communications

- **Type**   RS-232/422/485 (ADAM-4570)
                             RS-232 (ADAM-4570L)
- **Connectors**   2 x RJ-48
- **Ports**   2
- **Data Bits**   5, 6, 7, 8
- **Stop Bits**   1, 1.5, 2
- **Parity Bits**   Odd, even, none, space, mark
- **Baud Rate**   50 bps ~ 230 kbps
- **Data Signals**   RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND
                             RS-422: TxD+, TxD-, RxD+, RxD-, GND
                             RS-485: Data+, Data-, GND

Protection

- **Surge Protection**   15 kV$_{ESD}$

Software

- **Drivers Supported**   Windows NT/2000/XP
- **Utility Software**   Auto-detecting configuration utility (up to 128 devices) port mapping utility
- **Operation Modes**   Virtual COMport
- **Configuration**   Configuration utility
                             Port mapping utility

Mechanics

- **Dimensions (H x W x D)** 70 x 130 x 30 mm
- **Enclosure**   ABS+PC with solid mounting hardware
- **Mounting**   DIN-rail, stack, wall

General

- **Certifications**   CE, FCC class A
- **LED Indicators**   Network: Tx/Rx, Link , Speed (10/100 Mbps),
                             Serial: Tx/Rx
                             System: Status, Power

Power

- **Power Input**   Unregulated 10 to 30 V$_{DC}$
- **Power Consumption**   4 W

Environment

- **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-4570**   2-port RS-232/422/485 to Ethernet Data Gateway
                             (2 pcs of 1 m RJ-48 to male DB9 RS-232/422/485 cable included)
- **ADAM-4570L**   2-port RS-232 to Ethernet Data Gateway
                             (2 pcs of 1 m RJ-48 to male DB9 RS-232/422/485 cable included)
- **OPT1A**   1m RJ-48 to male DB9 RS-232/422/485 cable
- **OPT1D**   30cm RJ-48 to male DB9 RS-232/422/485 cable

ADVANTECH   **Industrial Ethernet Data Gateways**

ADAM-4577
1-port Universal Serial Device Gateway

ADAM-4579
2-port Universal Serial Device Gateway

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

Features

- Supports 10/100Base-T (ADAM-4579); 10Base-T (ADAM-4577)
- 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 a maximum of 8 host PCs to access with command response mode using UDP protocol
- 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
- Mounts on DIN-rail, panel or piggyback easily

CE FCC

Introduction

ADAM-4577 and ADAM-4579 are universal serial device gateways that bring RS-232/422/485 to Ethernet. They allow nearly any device with serial ports to connect and share an Ethernet network. ADAM-4577 and ADAM-4579 provide 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 ADAM-4577 or ADAM-4579, your existing serial devices can be used with the most popular operating systems on the market. There is no need to write special drivers for specific operating systems. Moreover, you can make serial devices 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 and ADAM-4579 are especially suitable for remote monitoring environments such as security systems, factory automaton, SCADA, transportation and more.

Specifications

Ethernet Communications

- **Compatibility** IEEE 802.3, IEEE 802.3u
- **Speed** ADAM-4579: 10/100 Mbps
  ADAM-4577: 10 Mbps
- **Connectors** 1 x RJ-45

Serial Communications

- **Type** RS-232/422/485
- **Connectors** ADAM-4577: 1 x DB-9 Male
  ADAM-4579: 2 x RJ-48
- **Ports** ADAM-4577: 1
  ADAM-4579: 2
- **Data Bits** 5, 6, 7, and 8
- **Stop Bits** 1, 1.5, and 2
- **Parity Bits** Odd, even, none, space, mark
- **Baud Rate** 30 bps ~ 230 kbps
- **Data Signals** RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND
  RS-422: TxD+, TxD-, RxD+, RxD- ,GND
  RS-485: Data+, Data-, GND

Software

- **Utility Software** Auto-detecting configuration utility (up to 128 devices)
  Easy-to-diagnose download & testing utility
  UDP testing utility (ADAM-4577)
- **Operation Modes** TCP Server (polling)
  TCP Client (event handling)
  Pair connection (Peer to Peer)
  UDP command response mode
  (multi-host, ADAM-4577)
  At command like control mode (ADAM-4579)
- **Configuration** Configuration utility

Mechanics

- **Dimensions (H x W x D)** 70 x 130 x 30 mm
- **Enclosure** ABS+PC with solid mounting hardware
- **Mounting** DIN-rail, stack, wall

General

- **Certifications** CE, FCC class A
- **LED Indicators** System: Power, status
  Network: Tx/Rx, Link, Speed (10/100 Mbps),
  Serial: TX/RX

Power

- **Power Input** Unregulated 10 ~ 30 V_{DC}
- **Power Consumption** ADAM-4577: 2 W
  ADAM-4579: 4 W

Environment

- **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
  (2 pcs of 1 m RJ-48 to male DB9 RS-232/422/485 cable included)
- **OPT1A** 1m RJ-48 to male DB9 RS-232/422/485 cable
- **OPT1D** 30cm RJ-48 to male DB9 RS-232/422/485 cable

ADAM-4572

1-port Modbus® to Ethernet Data Gateway

Features

- Supports 10/100 Mbps communication speeds
- Allows up to 8 clients to access field data simultaneously
- Supports popular HMI software with Modbus®/TCP driver or OPC server
- Up to 3 Independent serial ports capacity if configured to RS-485 serial mode
- Provides auto-searching device ID Windows utility
- Surge protection for RS-485 and power line
- Automatic RS-485 data flow control
- Easy mounting on DIN-rail and wall, and can also be stacked
- Supports Modbus/ASCII, Modbus/RTU Protocol to control devices

C E FCC

Introduction

ADAM-4572 serves as an interface between Modbus serial devices and computer hosts running Modbus/TCP on an Ethernet network. Fully compliant with Modbus/TCP, it is ideal for those who looking for an easy way to connect their existing devices or controllers running Modbus serial protocols (Modbus/ASCII or Modbus/RTU) to Ethernet networks. It works like a bridge between Modbus serial devices and controllers over TCP/IP Ethernet networks. Benefits are also abundant for customers who want to expand their Ethernet-based Modbus (Modbus/TCP) applications.

Networks have become increasingly vital for industrial automation applications, but many control devices today do not have a network port and can only communicate with a dedicated local PC or control panel. Advantech's revolutionary network-enabling technology is now allowing control devices with serial ports to connect to the Ethernet and share networks quickly and cost-effectively. The ADAM-4572 Modbus to Ethernet Data Gateway allows users to integrate new and existing Modbus/RTU and Modbus/ASCII serial devices to newer TCP/IP network-based devices. Manufacturers, system integrators, and end users can now use the ADAM-4572 to create networked applications to remotely manage and access data from control devices no matter where they are.

Specifications

Ethernet Communications

- **Compatibility**   IEEE 802.3, IEEE 802.3u
- **Speed**   10/100 Mbps
- **Connectors**   1 x RJ-45

Serial Communications

- **Type**   RS-232/422/485
- **Connectors**   Screw terminal
- **Ports**   1
- **Data Bits**   7, 8
- **Stop Bits**   1, 2
- **Baud Rate**   300 bps ~ 115.2 kbps
- **Data Signals**   RS-232: TxD, RxD, GND
                        RS-422: TxD+, TxD-, RxD+, RxD-, GND
                        RS-485: Data+,Data-, GND

Protection

- **Surge Protection** 15 kV$_{ESD}$

Software

- **Drivers Supported** Windows® 98/NT/2000/XP
- **Utility Software** Auto-detecting configuration utility (up to 128 devices)
                        Device setting: name, description, serial port
- **Operation Mode**   Modbus/TCP, Modbus/RTU, Modbus/ASCII
- **Configuration**   Configuration utility

Mechanics

- **Dimensions (H x W x D)** 70 x 130 x 30 mm
- **Enclosure**   ABS+PC with solid mounting hardware
- **Mounting**   DIN-rail, stack, wall

General

- **Certifications**   CE, FCC class A
- **LED Indicators**   Network: Tx/Rx, Link, Speed (10/100 Mbps)
                        Serial: Tx/Rx
                        System: Power, Status

Power

- **Power Input**   Unregulated 10 ~ 30 V$_{DC}$
- **Power Consumption** 3 W

Environment

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

Ordering Information

- **ADAM-4572**   1-Port Modbus to Ethernet Data Gateway

EDG-4504

Features

- 4 x RS-232/422/485 serial communication devices
- Automatic network connection recovery
- Auto-detects 10/100 Mbps Ethernet interface
- Supports an advanced security mechanism to avoid unauthorized access
- Tx/Rx LEDs for all ports to monitor data transmission
- Convenient and simple installation wizard
- Simple setup and configuration
- Auto-reconnection
- Remote updating firmware
- Automatic RS-485 data flow control

C€ FCC

Introduction

The EDG-4504 is an industrial-grade, network-based, serial device server for connecting four RS-232/422/485 devices, such as CNCs, PLCs, scales, and scanners, directly to a TCP/IP network (Ethernet or Internet). Compared to similar devices on the market, it has a lower cost, great performance, and the most advanced features. Both 10 Mbps and 100 Mbps Ethernet connections are supported, providing higher bandwidth, lower traffic impact, and more layout flexibility.

You can use the Windows utility to configure EDG-4504 without programming. This not only protects your current hardware investment but also ensures future network expandability. Since the protocol conversion is transparent, all your existing devices can be seamlessly integrated with the Ethernet LAN network. Therefore, EDG-4504 can be used in security system, factory automation, SCADA, transportation and more.

Specifications

Ethernet Communications

- **Compatibility**   IEEE802.3, IEEE802.3u
- **Speed**   10/100 Mbps
- **Connectors**   1 x RJ-45

Serial Communications

- **Type**   RS-232/422/485
- **Connectors**   4 x DB9 Male
- **Ports**   4
- **Data Bits**   5, 6, 7, 8
- **Stop Bits**   1, 1.5, 2
- **Parity Bits**   None, even, odd, space, mask
- **Baud Rate**   50 bps ~ 230.4 kbps
- **Data Signals**   RS-232: TxD,RxD,CTS,RTS,DTR,DSR,DCD,RI,GND
     RS-422: TxD+,TxD-,RxD+,RxD-,GND
     RS-485: Data+,Data-,GND

Protection

- **Surge Protection**   15 kV$_{ESD}$

Software

- **Drivers Supported**   Windows® NT/2000/XP
- **Utility Software**   Auto-detecting configuration utility (up to 128 devices) port mapping utility
- **Operation Modes**   Virtual COMport
- **Configuration**   Configuration utility
     Port mapping utility

Mechanics

- **Dimensions (H x W x D)**   36 x 188 x 120 mm
- **Enclosure**   Aluminum chassis
- **Mounting**   DIN-rail, wall

General

- **Certifications**   CE, FCC class A
- **LED Indicators**   System: status
     Network: Tx/Rx, Link, Speed (10/100 Mbps),
     Serial: Tx/Rx

Power

- **Power Input**   Unregulated 10 ~ 30 V$_{DC}$
- **Power Consumption**   4.5 W

Environment

- **Operating Temperature**   0 ~ 55° C (32 ~ 131° F)
- **Storage Temperature**   -20 ~ 80° C (-4 ~ 176° F)
- **Operating Humidity**   20 ~ 95% (non-condensing)
- **Storage Humidity**   0 ~ 95% (non-condensing)

Ordering Information

- **EDG-4504**   4-port RS-232/422/485 to Ethernet Data Gateway

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

EDG-4508(R)+
EDG-4516(R)+

8-port RS-232/422/485 to Ethernet Data Gateway with Front/Rear Wiring

16-port RS-232/422/485 to Ethernet Data Gateway with Front/Rear Wiring

NEW

EDG-4508+   EDG-4516+

C€ FCC

Features

- RS-232/422/485 Serial Communication, up to 8 or 16 port
- Supports 10/100Base-T Ethernet network
- Supports Baud rate up to 230.4 kbps
- Provides Virtual COMport, TCP/IP and UDP operation modes
- 4 x DI/O for alarm/event control
- Provides rich configuration ways: Serial Console, Windows utility, and Web
- Supports an advanced security mechanism to avoid unauthorized access
- Auto connection recovery
- Remote download firmware
- Easy-managing Port Mapping Utility and configuration utility for Windows NT/2000/XP
- Buzzer for easy locate
- Rack mounted
- Rear wiring (EDG-4508R+/16R+)
- Automatic RS-485 data flow control

Introduction

EDG-4508 and EDG-4516 are industrial-grade network-based serial device servers for connecting up to 8 or 16 serial RS-232/422/485 device, such as CNCs, PLCs, scales and scanners, directly to Ethernet network. Compared with similar product on the market, EDG-4508 and EDG-4516 are low cost, but with high performance and reliability.

EDG-4508 and EDG-4516 provide 8 and 16 ports of serial communication. For many applications, you could also use EDG-4508 and EDG-4516 to remote monitor and control your serial device. Furthermore, EDG-4508 and EDG-4516 also build-in 4 channel digital inputs and 4 channel digital outputs for alarm or event control. EDG-4508 and EDG-4516 offer different ways to configured through windows utility, COM port mapping utility or serial interface console, these configuration methods make it easy manage many EDG-4508 and EDG-4516 or serial devices on your network.

Specifications

Ethernet Communication

- **Compatibility**   IEEE802.3, IEEE802.3u
- **Speed**   10/100Mbps
- **Connectors**   1 x RJ-45

Serial Communication

- **Type**   RS-232/422/485
- **Connectors**   8 x RJ-48(EDG-4508)
16 x RJ-48(EDG-4516)
- **Ports**   8 (for EDG-4508)
16 (for EDG-4516)
- **Data Bits**   5,6,7,8
- **Stop Bits**   1,1.5,2
- **Parity Bits**   Odd,even,none,space,mark
- **Baudrate**   50bps ~ 230.4 kbps
- **Data Signals**   TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND (RS-232)
TxD+, TxD-, RxD+, RxD-, GND (RS-422)
Data+, Data-, GND (RS-485)
- **Digital I/O**   4DI & 4DO
Digital Input:
Logic level 0 : 0 ~ 4.2 V , close to GND
Logic level 1 : 4.4 ~5 V , open
Digital Output:
Open collector up to 30 V, 200 mA Max load

Protection

- **Serial Protection**   15 KV$_{ESD}$

Software

- **Drivers Supported**   Windows® NT/2000/XP

- **Utility Software**   Auto-detecting configuration utility (up to 256 devices)
Port mapping utility
- **Operation Mode**   Virtual COM port
TCP/UDP server data mode
TCP/UDP client data mode,
AT command like control mode
- **Configuration**   Configuration utility
Port mapping utility
Console serial command line interface configuration
Web interface configuration

Mechanics

- **Enclosure**   SECC Chassis
- **Mounting**   Rack
- **Dimensions (H x W x D)** 44 x 442 x 190 mm

General

- **Certification**   CE,FCC ClassA
- **LED**   Power, Status
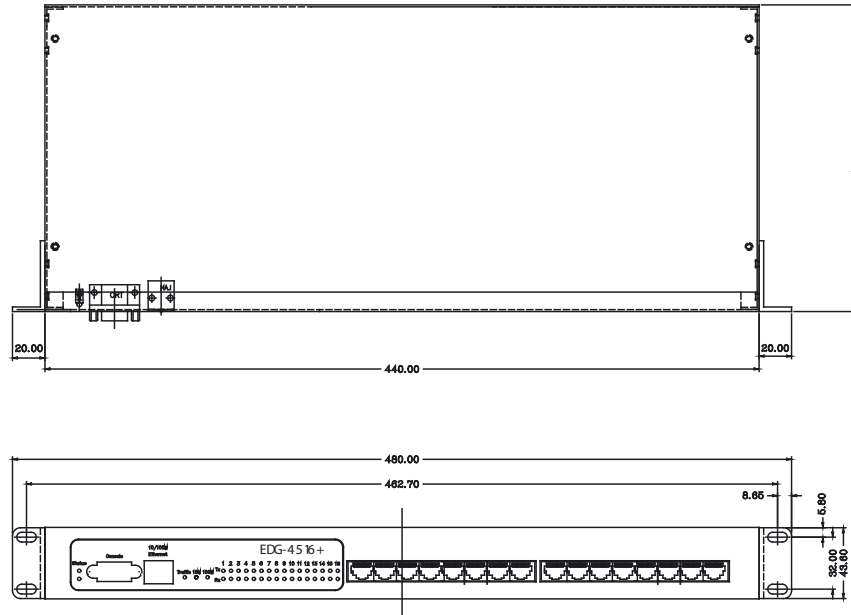Ethernet: Speed, Link
Serial: Tx, Rx

Power

- **Power Input**   90 ~ 260 V$_{AC}$, 47 ~ 63 Hz
- **Power Consumption**   10 W (EDG-4516)
8 W (EDG-4508)

Environment

- **Operating Temp.**   0 ~ 55° C (32 ~ 131° F)
- **Storage Temp.**   -20 ~ 80° C (-4 ~ 176° F)
- **Operating Humidity**   20% ~ 95% (non-condensing)
- **Storage Humidity**   0% ~ 95% (non-condensing)

Dimensions

Unit: mm

Ordering Information

- **EDG-4508+** 8-port RS-232/422/485 to Ethernet Data Gateway with front wiring
- **EDG-4516+** 16-port RS-232/422/485 to Ethernet Data Gateway with front wiring
- **EDG-4508R+** 8-port RS-232/422/485 to Ethernet Data Gateway with rear wiring
- **EDG-4516R+** 16-port RS-232/422/485 to Ethernet Data Gateway with rear wiring

*all items include 1 PC 30cm RJ-48 to male DB9 RS-232/422/485 cable

- **OPT1A** 1 m RJ-48 to male DB9 RS-232/422/485 cable
- **OPT1D** 30 cm RJ-48 to male DB9 RS-232/422/485 cable
- **OPT1G** 1 m RJ-48 to male DB25 RS-232/422/485 cable
- **OPT1H** 1 m RJ-48 to female DB25 RS-232/422/485 cable

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

ADAM-4561
1-port Isolated USB to RS-232/422/485 Converter

ADAM-4562
1-port Isolated USB to RS-232 Converter

ADAM-4561

ADAM-4562

Features

- Full compliance with USB V1.1 specifications
- RS-232/422/485 port supported (only ADAM-4561)
- Transmission speed up to 115.2 kbps
- Isolation protection 3000 V_{DC} provided
- Automatic RS-485 data flow control
- No external power supply necessary; the hub derives its power from the USB port
- Plug & Play installation
- No additional IRQs or I/O ports required
- Hot swap function supported

Introduction

ADAM-4561/4562 allows PC users to connect a serial device to a system that use a USB interface. To attach the ADAM-4561/4562 to a PC, you don't need to open the chassis or power down your PC. Instantly get one or two extra high-speed RS-232/422/485 ports. The power is derived from the USB port, so there are no power adapters to deal with. This makes the ADAM-4561/4562 especially suitable for modems, printers, POS systems and industrial control devices.

Compliant with USB V1.1, ADAM-4561/4562 features several powerful functions such as high-speed 115.2 kbps transmission, support for various operating systems, independent RS-232/422/485 ports and more. By simply plugging in a USB hub, ADAM-4561/4562 eliminates the configuration issues associated with high-priced, older card solutions. You only have to install the drivers, no need to set cards slots, IRQ addresses, DMA channels, or device addresses. This reduces programming effort.

Specifications

General

- **Certifications** CE, FCC
- **Connectors** 1 x USB Type B (Type A to Type B cable provided)
  1 x Plug-in screw terminal (#14 ~ 22 AWG)
- **Enclosure** ABS+PS
- **Mounting** DIN 35 rail, stack, wall
- **Power Consumption** ADAM-4561: 270 mA @ 5 V (Typical)
  300 mA @ 5 V (Max.)
  ADAM-4562: 155 mA @ 5 V (Typical)
  220 mA @ 5 V (Max.)

Communications

- **Data Bits** 5, 6, 7, 8
- **Error Detection** Parity error, frame error, serial break (ADAM-4562)
- **Max. Distance** 15 ft (4.6 m)
- **Parity Bits** ADAM-4561: Odd, even, none
  ADAM-4562: Odd, even, mark, space, none
- **RS-232 Signals** ADAM-4561: 3-wire(Tx, Rx, GND)
  ADAM-4562: 9-wire
- **Stop Bits** 1, 1.5, 2
- **Transmission Speed** ADAM-4561: 50 bps to 115.2 kbps
  ADAM-4562: 75 bps to 115.2 kbps

Protection

- **Isolation Protection** ADAM-4561: 3,000 V_{DC} (RS-232/422/485)
  ADAM-4562: 2,500 V_{DC}
- **Surge Protection** 3,000 V_{DC} (RS-485)

Software

- **Driver Support** Windows® 98/2000/ME/XPEnvironment
- **Operating Temperature** 0 ~ 70° C (32 ~ 158° F)
- **Storage Temperature** -25 ~ 80° C (-13 ~ 176° F)
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Storage Humidity** 5 ~ 95% (non-condensing)

Ordering Information

- **ADAM-4561** 1-port Isolated USB to RS-232/422/485 Converter
- **ADAM-4562** 1-port Isolated USB to RS-232 Converter

ADVANTECH **Industrial Ethernet Data Gateways**

USB-4602B
USB-4602BM

2-port RS-232 to USB Converter w/Surge Protection
2-port RS-232/422/485 to USB Converter w/Surge Protection

1 PAC & Software
2 BAS
3 UNO
4 RS-485 I/O
5 Ethernet I/O
6 TPC
7 IPPC
8 FPM
9 AWS
10 Plug-in I/O
11 CompactPCI
12 Signal Conditioning
13 USB I/O
14 Motion Control I/O
15 Ethernet Switch
16 EDG
17 ICOM

Features

- Full compliance with USB V1.1 and V2.0 specifications.
- RS-232/422/485 port supported
- Transmission speed up to 921.6 kbps
- Automatic RS-485 data flow control
- No external power supply necessary; the hub derives its power from the USB port
- Plug & Play installation
- No additional IRQs or I/O ports required
- Hot swap function supported

Introduction

USB-4602B and USB-4602BM USB to serial converters are the easiest, most reliable way to add serial ports to a PC. To attach the USB-4602B/4602BM to a PC, you don't need to open the chassis or power down your PC. Instantly get extra high-speed RS-232/422/485 ports. The devices are powered by the USB connection, so there are no power adapters to deal with. This makes the USB-4602 series especially suitable for printers, POS system, and industrial control devices.

Support high speed USB 2.0 up to 480M bps, USB-4602 series support for transmission speeds up to 921.6 kbps, which meets the demand for high-speed data exchange. USB-4602 series also gestures several powerful functions such as independent RS-232/422/485 ports, support for various operating systems and more. By simply plugging in a USB hub, USB-4602 series eliminate the configuration issues associated with high-priced, older card solution. You only have install the driver, no need to set cards slots, IRQ addresses, or device addresses. This reduces programming effort.

USB 2.0, now standard on virtually all new PCs, can connect up to 127 devices at data rates up to 480Mbps. The significant advantage over earlier bus means that your serial connection can grow with your requirement easily and conveniently.

Specifications

General

- **Certifications**   CE, FCC
- **Connectors**   1 x USB Type B (Type A to Type B cable provided)
                          2 x DB9
- **Enclosure**   ABS+PS
- **USB Cable**   Max. 15ft (4.6 m)
- **Mounting**   DIN 35 rail, stack, wall

Insert

- **Power Input**   10 to 48 V_{DC} (external) or 5 V_{DC} (Bus Power)
- **Power Consumption**   100 mA @ 5 V (Typical)
                          150 mA @ 5 V (Max.)

Communications

- **Data Bits**   5, 6, 7, 8
- **Parity Bits**   Odd,even,none,space,mark
- **Stop Bits**   1, 1.5, 2
- **Transmission Speed** up to 921.6 kbps

Protection

- **Surge Protection**   3,000 V_{DC}

Software

- **Driver Support**   Windows® 2000/XP/2003

Environment

- **Operating Temperature** 0 ~ 55° C (32 ~ 158° F)
- **Storage Temperature**   -25 ~ 80° C (-13 ~ 176° F)
- **Operating Humidity**   20 ~ 95% (non-condensing)
- **Storage Humidity**   5 ~ 95% (non-condensing)

Ordering Information

- **USB-4602B**   2-port RS-232 to USB Converter w/Surge Protection
- **USB-4602BM**   2-port RS-232/422/485 to USB Converter w/Surge Protection

USB-4604B
USB-4604BM

4-port RS-232 to USB Converter w/Surge Protection
4-port RS-232/422/485 to USB Converter w/Surge Protection

Features

- Full compliance with USB V1.1 and V2.0 specifications.
- RS-232/422/485 port supported
- Transmission speed up to 921.6 kbps
- Automatic RS-485 data flow control
- No external power supply necessary; the hub derives its power from the USB port
- Plug & Play installation
- No additional IRQs or I/O ports required
- Hot swap function supported

Introduction

USB-4604 series allows PC users to connect a serial device to a system that use a USB interface. To attach the USB-4604B/USB-4604BM to a PC, you don't need to open the chassis or power down your PC. Instantly get extra high-speed RS-232/422/485 ports. The power is derived from the USB port, so there are no power adapters to deal with. This makes the USB-4602/4604 especially suitable for modems, printers, POS systems and industrial control devices.

Support USB2.0 high speed, USB-4604B/USB-4604BM features several powerful functions such as high-speed 921.6 kbps transmission, support for various operating systems, independent RS-232/422/485 ports and more. By simply plugging in a USB hub, USB-4604B and USB-4604BM eliminates the configuration issues associated with high-priced, older card solutions. You only have to install the drivers, no need to set cards slots, IRQ addresses, DMA channels, or device addresses. This reduces programming effort.

USB2.0, now standard on virtually all new PCs, offers significant advantages over earlier bus types. A single USB interface can connect up to 127 devices at data rates up to 480 Mbps. That kind of easy and convenient connectivity means that your network can grow with your requirements.

Specifications

General

- **Certifications** — CE, FCC
- **Connectors** — 1 x USB Type B (Type A to Type B cable provided)
  4 x DB9
- **Enclosure** — ABS+PS
- **USB Cable** — Max. 15ft (4.6 m)
- **Mounting** — DIN 35 rail, stack, wall

Insert

- **Power Input** — 10 to 48 V_{DC} (external) or 5 V_{DC} (Bus Power)
- **Power Consumption** — 130 mA @ 5 V (Typical)
  200 mA @ 5 V (Max.)

Communications

- **Data Bits** — 5, 6, 7, 8
- **Parity Bits** — Odd,even,none,space,mark
- **Stop Bits** — 1, 1.5, 2
- **Transmission Speed** — up to 921.6 kbps

Protection

- **Surge Protection** — 3,000 V_{DC}

Software

- **Driver Support** — Windows® 2000/XP/2003

Environment

- **Operating Temperature** — 0 ~ 55° C (32 ~ 158° F)
- **Storage Temperature** — -25 ~ 80° C (-13 ~ 176° F)
- **Operating Humidity** — 20 ~ 95% (non-condensing)
- **Storage Humidity** — 5 ~ 95% (non-condensing)

Ordering Information

- **USB-4604B** — 4-port RS-232 to USB Converter w/Surge Protection
- **USB-4604BM** — 4-port RS-232/422/485 to USB Converter w/Surge Protection

ADVANTECH | **Industrial Ethernet Data Gateways**