

# ADAM-6500

# ADAM-6501

## Web-enabled Communication Controller

## Web-enabled Universal Communication Controller



CE FCC

### Features

- Powerful Ethernet-enabled communication controller in a small package
- Built-in Windows CE .NET to run embedded Ethernet applications
- Built-in web server
- Microsoft embedded VC++ development environment supported
- Built-in CompactFlash® slot
- Flash disk for WinCE and user's AP (ADAM-6500: 16 MB, ADAM-6501: 32 MB)
- Built-in real-time clock and watchdog timer
- Offers RS-232 and RS-485 series communication port (ADAM-6500: 3 x RS-232, 2 x RS-485; ADAM-6501: 1 x RS-232, 1 x RS-485)
- Automatic data flow control in RS-485 mode
- Communication speed up to 115.2 kbps
- Easy to mount on a DIN-rail or panel

### Introduction

ADAM-6500 and ADAM-6501 are fully functional Ethernet-enabled controllers for industrial automation and control. They provide an ideal environment to develop applications converting RS-232/485 devices/equipment data to the Ethernet/Internet world with minimum effort. Their built-in Windows CE .NET operating system lets users run new programs produced in Microsoft embedded VC++. The Windows environment also includes a web server to allow the designer to develop web-enabled applications.

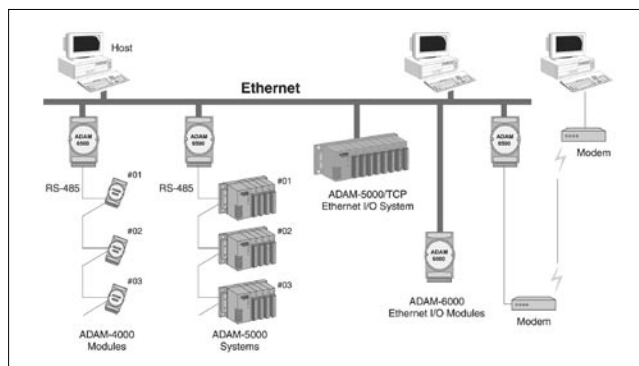
### Specifications

- **CPU** ADAM-6500: 32 bit Intel® StrongArm® 206 MHz  
ADAM-6501: 32 bit Intel® XScale® 400 MHz
- **Flash Memory** 16 MB flash memory for ADAM-6500  
32MB flash memory for ADAM-6501
- **Memory** 64 MB SDRAM
- **Operating System** Windows CE .NET
- **Ethernet Port** ADAM-6500: One 10Base-T  
ADAM-6501: One 10/100Base-T
- **Serial Ports (isolated)** ADAM-6500: 3 RS-232, 2 RS-485  
ADAM-6501: 1 RS-232 (RJ-48), 1 RS-485  
Speed: 115.2 kbps
- **Built-in Watchdog Timer** Yes
- **Real-time Clock** Yes
- **LED Indicators** Power, diagnostics, communication
- **Protocols Supported** TCP/IP, UDP
- **System Management** Web-based remote configuration via standard browser with Java® support.  
Console mode command line configuration.
- **Mounting** DIN-rail, panel, wall, piggyback stack
- **Default Setting** Onboard
- **Recovery**
- **Power Supply Voltage** +24 V<sub>DC</sub> (Range: 10 ~ 30 V<sub>DC</sub>)
- **Max. Power** +24 V<sub>DC</sub> @ 0.25 A
- **Requirements**
- **Operating Temperature** 0 ~ 55° C
- **Storage Temperature** -20~ 80° C

### Feature Details

#### Built-in Ethernet and RS-232/485 COM Ports

The ADAM-6500 has one Ethernet (10BASE-T), and four communication ports (3 x RS-232 and 2 x RS-485). The ADAM-6501 has one Ethernet (10/100BASE-T), one RS-232 and one RS-232/485 ports. These provide easy communication between the controller and devices in your applications, and has been designed for program downloading, debugging and linking serial devices with the Ethernet/Internet. Both ADAM-6500 and 6501 is equipped with a COM1 port (RS-232) supporting full RS-232 signals for applications such as modem connections, while the 3-pin RS-232 and RS-485 are designed as the interface for traditional RS-232/485 devices/equipment. This design allows the controller to be used in a variety of applications. For example, the user may download a data logging application into the ADAM-6500/6501's memory while the ADAM-6500/6501 is connected to a RS-485 network, and then collect the data over the network.



#### Built-in Real-time Clock and Watchdog Timer

The real-time clock in the controller ensures accurate time recording when the system operates. The watchdog timer is designed to automatically reset the CPU if the system fails.

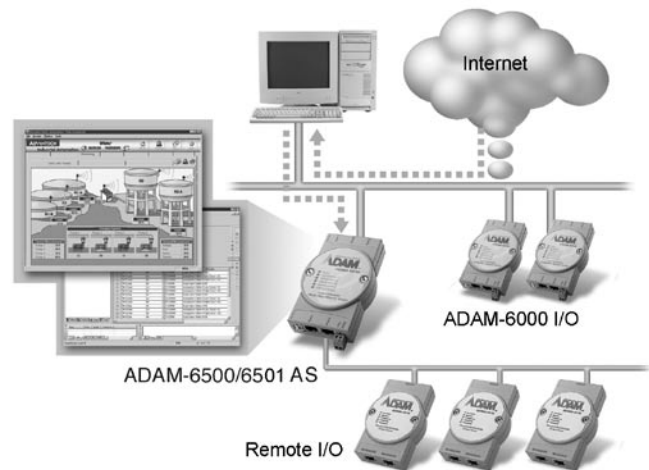
### Ordering Information

- **ADAM-6500** Web-enabled Communication Controller
- **ADAM-6501** Web-enabled Universal Communication Controller

## Feature Details Cont.

### ADAM-6500/6501AS PC-Based HMI Station/SCADA

The ADAM-6500/6501AS embeds Advantech Studio into ADAM-6500/6501 hardware. So you can easily develop the required application in a desktop PC, then download it into ADAM-6500/6501AS as a cost effective, compact size SCADA/HMI station. Advantech Studio (AStudio), a powerful, integrated collection of automation tools that includes all the building blocks required to develop modern Human Machine Interfaces (HMI), and Supervisory Control and Data Acquisition System (SCADA) applications. AStudio in ADAM-6500/6501AS can run native on Windows CE.NET or in an Internet and Intranet environment. A simple drag and drop, point and click development environment mimics the most complex behavior of your live processes. AStudio is an eAutomation solution that allows designers to develop web-enabled applications.

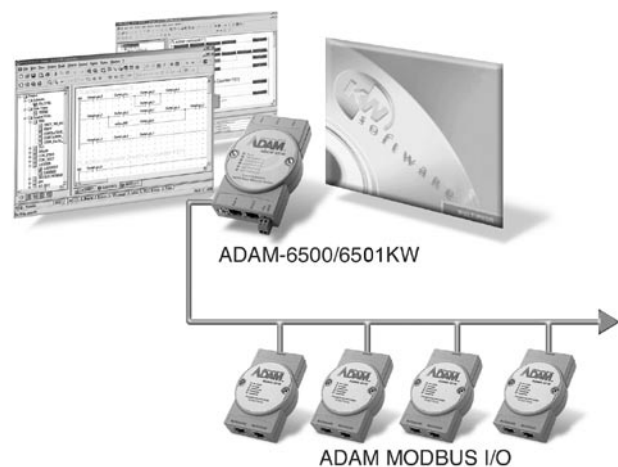


### ADAM-6500/6501KW PC-Based Softlogic Controller

As PC-based automation has developed, Advantech PC-based controllers have been widely applied in variety of industrial automation applications. In order to empower the PC-based controllers, Advantech has allied with KW software to develop a new generation of softlogic controllers with MULTIPROG - IEC 61131 complied softlogic control engine. Evolved from the ADAM-6500/6501, the ADAM-6500/6501KW is a new softlogic controller that features with large memory capacity, multi communication interfaces, user-friendly configuration tools and much more.

ADAM-6500/6501KW is not only a cost-effective micro-controller, but also features several powerful control functions that improve on traditional programmable logic controllers.

- Process IEC-61131 standard with rich development environment
- Cross-Language programming
- Large memory for programming and storage
- Real time multi-tasking engine
- Free pre-defined function library
- Powerful debug / diagnostic / simulation / force tools
- Open Standard connection - Modbus standard Interface
- Online editing & partial download
- RS-232/485 communication ability
- Built-in ROM and RAM disk for programming
- Built-in real-time clock and watchdog timer



## Applications

- Distributed data acquisition and control
- Embedded control application (Advantech AStudio SCADA Software and KW Softlogic)
- Data logging applications
- Serial to Ethernet conversion
- Web-enabled data acquisition and control

