

ADAM-5510/TCP

ADAM-5510E/TCP

Ethernet-enabled
Programmable Controller

8-Slot Ethernet-enabled
Programmable Controller

NEW



FCC CE

Features

- 10/100Base-T Ethernet interface
- Support Web Server function
- Support Email Alarm function
- Support FTP Server and Client functions
- Support Modbus/TCP Server and Client function libraries
- Support Modbus/RTU Master and Slave function libraries
- 1.5 MB Flash ROM (960 KB for user applications)
- 640 KB SRAM (384 KB for battery backup)
- ROM-DOS operating system
- Watchdog timer and real-time clock
- 4 serial communication ports
- 4 or 8 I/O slot extension

Introduction

In the ADAM-5510 series of PC-based programmable controllers, Advantech has introduced Ethernet-enabled features. The new 4-slot ADAM-5510/TCP and 8-slot ADAM-5510E/TCP support HTTP server, FTP server, and e-mail alarm functions. These functions can be used to monitor a system via the Internet, acquire data through an FTP connection and send alarms to designated e-mail addresses if a critical situation emerges. Both products also support Modbus/TCP server/client functions. The ADAM-5510/TCP and ADAM-5510E/TCP can work as a Modbus/TCP client to retrieve data from remote I/Os, and Modbus/TCP server to connect with the HMI/SCADA software.

Specifications

PC-based Programmable Controller System

- **CPU** 16-bit processor
- **Memory** 1.5 MB flash ROM (960 KB for user applications)
640 KB SRAM (384 KB for battery backup RAM)
- **Operating System** ROM-DOS
- **Timer BIOS** Yes
- **Real-time Clock** Yes
- **Watchdog Timer** Yes
- **Ethernet** 10/100 Mbps Base Base-T
- **COM1** RS-232/485 (5510E/TCP), RS-232 (5510/TCP)
- **COM2** RS-485
- **COM3/Prog. Port** TX, RX, GND (RS-232 Interface)
- **COM4** RS-232/485
- **IO Capacity** 4 or 8 slots
- **Status Display** Power, CPU, Communication and Battery
- **CPU Power Consumption** 2.5 W

Isolation

- **Communication Power** 3000 V_{DC}
- **Input/Output** 3000 V_{DC}
- **Communication** 2500 V_{DC} (COM2 Only)

Network

- **Ethernet** 10/100 Mbps
- **RS-485** 9600, 38400, 57600 and 115.2 k

Software Support

- **C Library** Borland C++ 3.0 for DOS

Power

- Unregulated +10 to +30 Vdc
- Protected against Power Reverse

Mechanical

- **Case** KJW with captive mounting hardware
- **Plug-in Screw**
- **Terminal Block** Accepts 0.5 mm² to 2.5 mm², 1-#12 or 2-#14 to #22 AWG

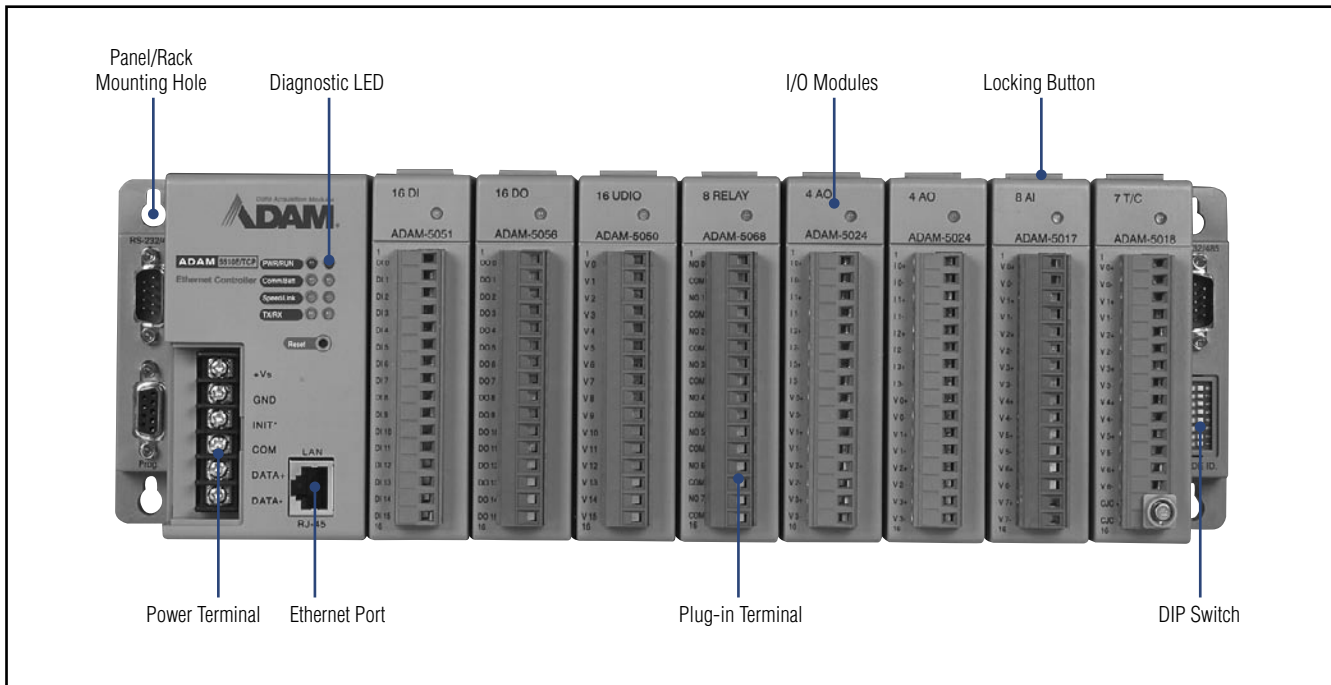
Environment

- **Operating Temperature** -10 ~ 70° C (14 ~ 158° F)
- **Storage Temperature** -25 ~ 85° C (-13 ~ 185° F)
- **Humidity** 5 ~ 95%, noncondensing

Ordering Information

- **ADAM-5510/TCP** Ethernet-enabled Programmable Controller (4-slot)
- **ADAM-5510E/TCP** 8-Slot Ethernet-enabled Programmable Controller
- **PCLS-ADAMVIEW32** ADAMView Data Acquisition Software
- **PCLS-OPC/MOD** Modbus OPC Server
- **PCLS-OPC/MTP** Modbus/TCP OPC Server

ADAM-5510/TCP ADAM-5510E/TCP



Feature Details

Support Powerful Ethernet Features

ADAM-5510/TCP and ADAM-5510E/TCP are Ethernet-enabled Programmable Controllers. The new 4-slot ADAM-5510/TCP and 8-slot ADAM-5510E/TCP support HTTP server, FTP server, and e-mail alarm functions. These functions can be used to monitor a system via the Internet, acquire data through an FTP connection and send alarms to designated e-mail addresses if a critical situation emerges.

Enable Ethernet Connectivity with Other Devices

ADAM-5510/TCP and ADAM-5510E/TCP support both Modbus/TCP Server function library and Modbus/TCP Client function library. The ADAM-5510/TCP and ADAM-5510E/TCP can work as a Modbus/TCP client to retrieve data from remote I/O modules, and Modbus/TCP server to connect with the HMI/SCADA software.

More Data Memory and I/O Slots to Support Versatile Applications

The ADAM-5510/TCP and ADAM-5510E/TCP offer more than enough spare memory for developing complex logic or data storage applications, such as data recording, which is difficult for traditional controllers. The ADAM-5510/TCP and ADAM-5510E/TCP feature 1.5 MB flash memory and 640 KB SRAM (up to 384 KB battery backup memory). ADAM-5510/TCP and ADAM-5510E/TCP also support up to 4 or 8 I/O slots for I/O modules, which can provide more flexibility and I/O points for user's applications.

Complete I/O Module and C Library Support

The ADAM-5510/TCP and ADAM-5510E/TCP support industrial I/O modules including digital I/O, analog I/O, counter and special purpose I/O modules such as Thermocouple and RTD. It also offers well-stocked Borland C libraries, including system resources function, I/O functions, communication functions, socket functions, Modbus/TCP functions, Modbus/RTU functions and the functions of Ethernet features. All the functions have sample programs which can save development time and efforts.

Supports four Communication Ports

The ADAM-5510/TCP and ADAM-5510E/TCP has four independent communication ports. That means they can simultaneously communicate with one RS-232/485 device (COM1), one RS-485 device (COM2), one RS-232 3-wire device (COM3), and one RS-232/485 device (COM4). They also support Modbus/RTU master function library for connecting Modbus remote I/O modules and Modbus/RTU slave function library for connecting to HMI/SCADA software.

Multiple RS-232 Port Support

The ADAM-5090 is a 4-port RS-232 module that is equipped with 4 RS-232 ports, which make it especially suitable for bi-direction communication. It can simultaneously read/write data from other third-party devices such as barcode readers or PLCs, as long as they have an RS-232 interface. Furthermore, commands can be issued through the ADAM-5090 to control other devices. It is fully integrated with the ADAM-5510/TCP and ADAM-5510E/TCP, and transmits data through RS-232 ports. The whole integrated system supports Modbus/RTU master function, which can connect and issue commands to control Modbus remote I/O devices by Modbus/RTU protocol.