



### Features

- Ethernet 10/100Base-TX transmission
- RS-232/422/485 speed up to 230.4 Kbps
- 15KV ESD protection for all RS-232/422/485 signals
- 2.5KV isolation between device and RS-232/422/485 interface
- Supports terminator and biasing resistor via DIP switch
- Supports 3-channel DI and 3-channel DO for event trigger
- Supports ARP, TCP/IP, ICMP, DHCP, HTTP, Telnet, and SMTP
- Built-in webpage remote management for serial operation mode setting, DI/DO situation, and firmware upgrade
- Din-Rail mount or wall mount robust housing
- Operating temperature (0 to 70°C)

## Introduction

The AMC-5810 is an Ethernet to serial RS-232/422/485 converter. The device provides Ethernet communication with 10/100Mbps, the serial interface RS-232/422/485 configuration with webpage management and the DIP switch for position terminator or biasing resistor on the RS-485/422 communication network, the digital input (DI) and digital output (DO) channels for logic control or event trigger.

## Ethernet and Webpage

The AMC-5810 provides Ethernet 10/100Mbps communication and 1.5 KV isolated protection. The user can use standard or cross over cable to plug in RJ45 connector. It also supports TCP/IP, ARP, ICMP, HTTP, and Telnet protocols. The webpage provides serial RS-232/42/485 2-wire/485 4-wire mode, getting DI status, setting DO state, and firmware upgrade.

## Isolation and ESD protection

The AMC-5810 offers 2.5KV isolation protection between device and RS-232/422/485 interface. It also has 15KV ESD protection on all RS-232/422/485 signals.

## Serial mode, Terminator and Biasing functions

The AMC-5810 serial converter supports RS-232, RS-422, half-duplex 2-wire RS-485 and full-duplex 4-wire RS-485 modes selection, it is easy to use in the serial multi-drop networking application. There are terminators and biasing resistor for tuning networking characteristics.

## DI and DO channel

The AMC-5810 has 3-channel digital input (DI) and 3-channel digital output (DO). All of DO channels are sink-type and provide 150mA sink current, and have overcurrent protection. All of DI and DO channels have 2.5KV isolation and ESD protection.

## Wide operating temperature

For most of industrial applications are harsh environment, The AMC-5810 provided the operating temperature from -10 to 70°C, give you a reliable solution of a Ethernet to RS-232/422/485 converter for wide temperature application.

## Wall-mount or Din-Rail solution

The AMC-5810 provides wall-mount and DIN-Rail installation solutions; allow you easily screw it by wall mount screws or mount it on the DIN-Rail by DIN rail mount kit.

## Specifications

### Ethernet Interface

Number of Ports: 1  
 Compliance: IEEE 802.3/3u compliant  
 Connector: RJ45  
 Speed: 10/100Mbps  
 Magnetic Protection: 1.5 KV  
 Indicator: Act

### Webpage and Protocol Support

Serial mode configuration  
 Firmware upgrade  
 DI/DO setting  
 Protocol: ARP, ICMP, TCP/IP, HTTP, UDP, DHCP, Telnet, and SMTP

### DI/DO Interface

DI: 3-channel digital input  
 DO: 3-channel, 150mA sink-type and overcurrent protection  
 Connector: Terminal block 5.0mm  
 Isolation: 2.5KV between system and DI/DO

### Connector: DB9 male

Interface selection: setting by internal jumpers  
 Terminator and Biasing functions: setting by internal jumpers  
 RS-232 signals: DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI  
 RS-422 signals: TxD+, TxD-, RxD+, RxD-, GND  
 RS-485 4-wire signals: TxD+, TxD-, RxD+, RxD-, GND  
 RS-485 2-wire: Data+, Data-, GND  
 Indicator: Green for TxD, Red for RxD

### Definition of pin-out (DB-9)

### Serial Port Configuration

SW-1, A terminator between TxD+ and TxD-  
 SW-2: A terminator between RxD+(Data+) and RxD-(Data-)  
 SW3, SW4: 2 biasing resistors for RS-485 network communication  
 SW5: RS-232 Loop back test

### Connection Distance

Ethernet: 200 meters  
 RS-232: 15 meters (50 feet)  
 RS-422: 1200 meters (4000 feet)

RS-485 2w/4w: 1200 meters (4000 feet), Max. 32 nodes  
**ESD Protection:** ESD Contact 8KV, Air 15KV embedded  
**Isolation:** 2.5KV between system and RS-232/422/485

### Performance

Baud rate: 300 to 230400bps

### Serial Parameters

Data bits: 5, 6, 7, 8  
 Stop bits: 1, 1.5, 2  
 Parity: None, Even, Odd, Space, Mark  
 Flow control: RTS/CTS, XON/XOFF

### Physical Characteristics

Housing: SECC sheet metal (1mm), IP30 protection  
 Dimension: 74 x 24.7 x 99 mm (W x H x D)  
 Weight: 275 g

### Environment Operating

Operating Temperature: 0 ~ 70°C (32°F ~ 158°F)  
 Operating Humidity: 20 ~ 85% @40°C, non-condensing  
 Storage Temperature: -20 ~ 85°C (-4°F ~ 185°F)  
 Storage Humidity: 10 ~ 90% @40°C, non-condensing

### Safety and Certifications

EMC: CE, FCC  
 EMI: FCC Part 15 Class B, CE EN55022 Class B  
 EMS: EN55024: 2010  
     EN61000-4-2: 2009 (Level 4)  
     EN61000-4-3: 2006 + A2: 2010  
     EN61000-4-4: 2004 + A2: 2010  
     EN61000-4-8: 2010

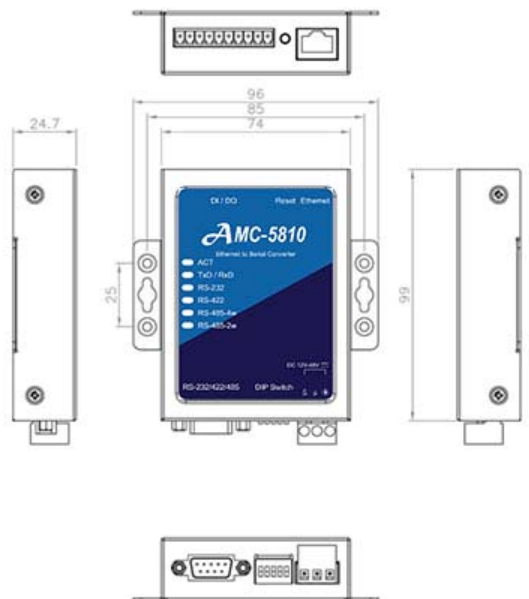
Green Product: RoHS, CRoHS, WEEE

### Power Requirements:

Power Input: 12 ~48Vdc,  
 Consumption: 110mA@24Vdc

**Warranty: 1 year**

## Dimension Drawing



## Ordering Information

P/N	Product Description	Operating Temperature	Isolation Protection	ESD protection
AMC-5810-i	Ethernet to isolated RS-232/422/485 Converter	0 ~ 70°C	2.5KV(RS-232/422/485)	15KV(Air)/8KV(Contact)
AMC-5810-id	Ethernet to isolated RS-232/422/485 Converter with DI and DO	0 ~ 70°C	2.5KV(RS-232/422/485)	15KV(Air)/8KV(Contact)
AMC-5810	Ethernet to RS-232/422/485 Converter	0 ~ 70°C		15KV(Air)/8KV(Contact)
AMC-5810-d	Ethernet to RS-232/422/485 Converter with DI and DO	0 ~ 70°C		15KV(Air)/8KV(Contact)

**Includes:**

- **AMC-5810**
- **Din rail kit**
- **Quick start and driver CD-ROM**