



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

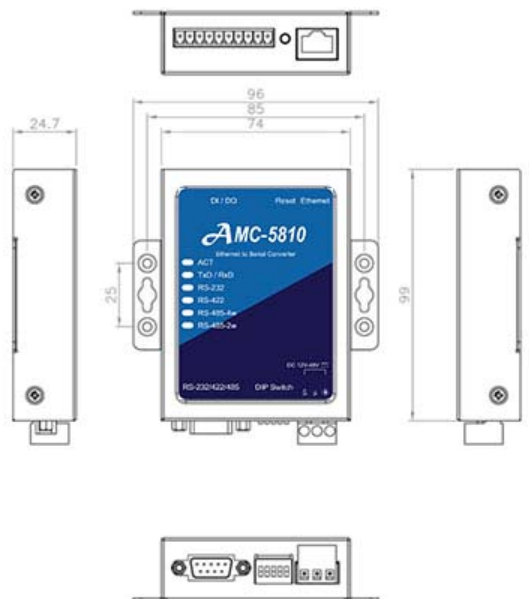
Green Product: RoHS, CRoHS, WEEE

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**