EMC-8432
Ethernet to RS232 converter module

User's Manual (V1.0)

Correction record

Version	Record
1.0	firmware version 1.0 up

Contents

Notes on hardware installation

Please register as user's club member to download the "Step_by_step_installation_of_Ethernet_module" document from http://automation.com.tw

1. **Forward**

Thank you for your selection of Ethernet to serial converter module EMC8432.

Thanks to the booming of network, Ethernet become a reliable and low cost solution for data communication. To utilize the Ethernet as data communication highway of industrial control devices is more attractive than ever. EMC8432 module is a Ethernet to serial converter and I/O control module. It is an RS232 to Ethernet device, which provide an easy to up grade your existing RS232 devices to Ethernet. The extra 8-bit programmable I/O give you compact solution when digital I/O is required.

With the module, we provide the dll's of Window's or Linux system, enabling you coding the flexible application as you need. Stable, high reliability and remote addressable module give you a new approach of application.

In the same series:
  EMC-8485   Ethernet to RS422/485 converter with 8-bit I/O

Any comment is welcome,
please visit our website
http://www.automation.com.tw/
http://www.automation-js.com/   for the up to date information.

2.　Features

- Over-voltage protection on digital input

- Various IO combinations : 8 bit configurable I/O's, any bit can be input or output

- High drive capacity on digital output

- Digital I/P as counter input

- Baudrate up to 921.6K

- Wide power range

- Standalone mode：step sequence control

- IP re-assignment

- 10/100M auto detection

- Software key function

3. Specifications

3.1 RS232

    3.1.1 Baud rate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 921600

    3.1.2 Data bits: 5, 6, 7, 8

    3.1.3 Stop bits: 1, 1.5,

    3.1.4 Parity: None, Even, Odd

3.2 Digital input

    3.2.1 Input points: max 8 (Configurable)

    3.2.2 Logic high level: 3.15V(min)

    3.2.3 Logic low level: 1.35V(max)

    3.2.4 Over-voltage protection: 60Vdc(max)

    3.2.5 Over-current protection: 50mA(max)

3.3 Digital output

    3.3.1 Transistor output: max 8 (Configurable)

    3.3.2 Transistor capacity: 500mA(peak), 45Vdc(max)

3.4 Ethernet

    3.4.1 10/100M auto switch x 2 port

3.5 General

    3.5.1 Power requirement: 12Vdc ~24Vdc

    3.5.2 Operation Temperature: 0 ~ +70 degree C
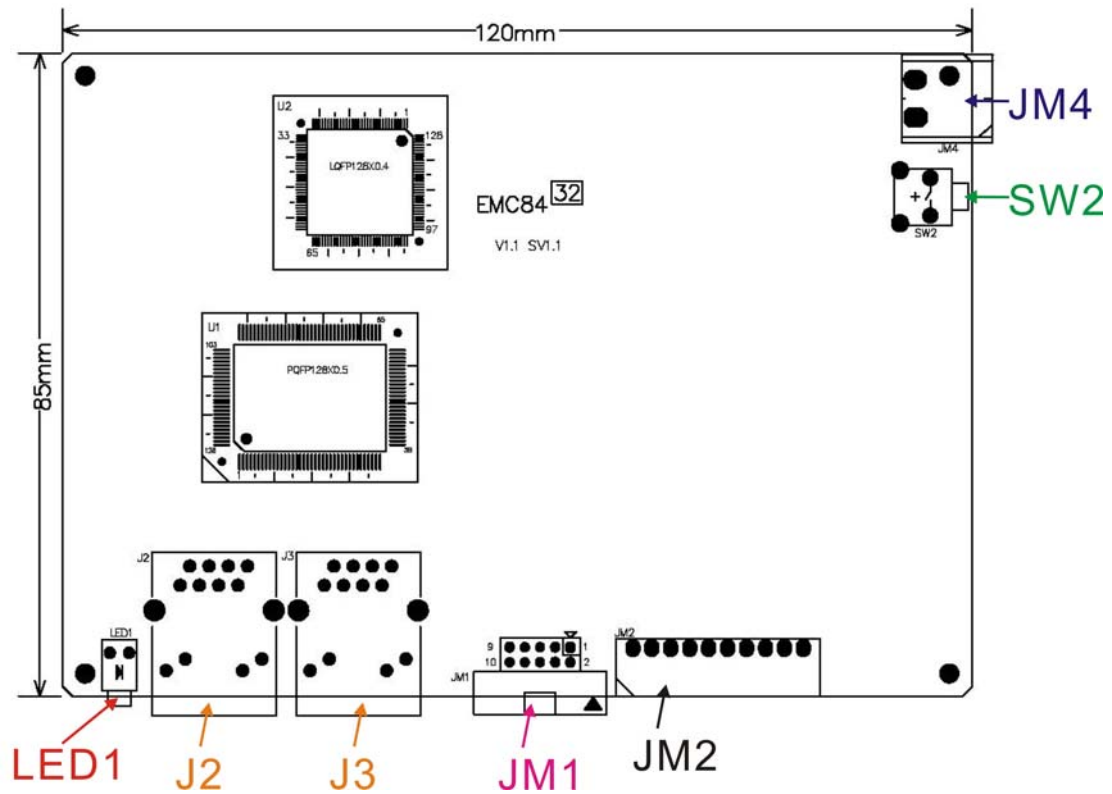
    3.5.3 Storage Temperature: -20 ~ +80 degree C

    3.5.4 Operation Humidity: 5~95% RH, non-condensing

    3.5.5 Dimension: 107.6(D)*135.8(W)*34(H) mm
                         4.3(D)*5.4(W)*1.4(H) in

4. Layout and dimensions

4.1 EMC-8432

LED1: system active LED

J2,J3: Ethernet RJ45 socket

JM1: RS232 connector

JM2: I/O connector

JM4: external power 24V connector

SW2: system reset switch

5. Pin definitions

5.1 JM1 RS232 (EMC-8432)

PIN	Descriptions
6	DSR
7	RTS
8	CTS
9	RI

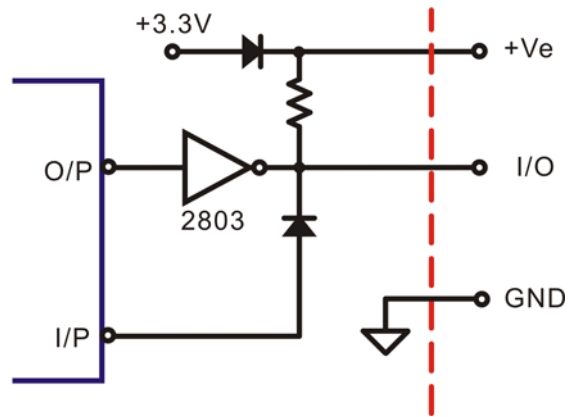| PIN	Descriptions
1	DCD
2	RXD
3	TXD
4	DTR
5	GND

5.2 JM2 pin definitions

+Ve*	1	
IO_0	2	
IO_1	3	
IO_2	4	
IO_3	5	
IO_4	6	
IO_5	7	
IO_6	8	
IO_7	9	
GND	10	

* +Ve can floating or voltage input (voltage range +3.3V ~ +24V)
* +Ve can apply different voltage as you need.

6. I/O Interface diagram

6.1 I/O diagram

Note: If +Ve is externally applied +24V then the IO_0 ~ IO_7 will be also applied.

7. Applications

- RS232 to ethernet converter
- Ethernet to RS232 converter
- Remote signal input
- Remote signal output
- Standalone step sequence controller
- Multi-channel low speed counter (200Hz)

8. Ordering information

PRODUCT	DESCRIPTIONS
EMC-8432	Ethernet module to RS232 (8 IO) Module (include M23406)
M23406	9 pin D type male cable 10cm
JD52000	110/220Vac to 24Vdc @1.5A power supply
JD52026	110/220Vac to 24Vdc @0.75A power adapter