

**EMC7432**  
**Ethernet to RS232 converter module**  
**User's Manual (V1.0)**

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# Correction record

Version	Record
1.0	firmware version 1.0 up

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# 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 EMC7432.

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. EMC7432 module is a Ethernet to serial converter and TTL 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 TTL 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.

Any comment is welcome,

please visit our website

[http:// www.automation.com.tw](http://www.automation.com.tw) for the up to date information.

## 2. **Features**

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- PTC (auto resettable fuse) protection on TTL I/O and communication signal pin.
- Digital I/P as counter input
- IP re-assignment
- 10/100M auto detection

## 3. Specifications

### 3.1 Ethernet

3.1.1 10/100M auto switch

### 3.2 RS232

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

3.2.2 Data bits: 5, 6, 7, 8

3.2.3 Stop bits: 1, 1.5, 2

3.2.4 Parity: None, Even, Odd

### 3.3 TTL I/O

3.3.1 Input Logic high level : 2V(min)

3.3.2 Input Logic low level : 0.4V(max)

3.3.3 Output Logic high level : 2.4V(min)@8mA

3.3.4 Output Logic low level : 0.4V(max)@8mA

3.3.5 Over-voltage protection : 60Vdc(max)

3.3.6 Over-current protection : 50mA(max)

3.3.7 Counter speed : 200Hz(max) square wave

### 3.4 General

3.4.1 Power requirement: 12Vdc ~24Vdc

3.4.2 Operation Temperature: 0~ +70 degree C

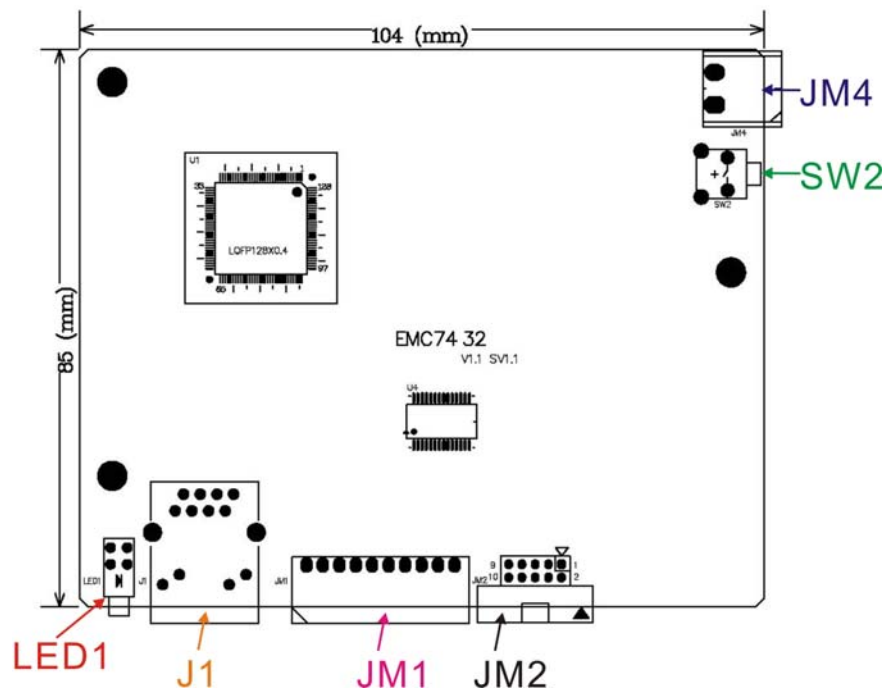
3.4.3 Storage Temperature: -20 ~ +80 degree C

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

3.4.5 Dimension: 89(D)\*110(W)\*34(H) mm  
3.5(D)\*4.33(W)\*1.39(H) in

## 4. Layout and dimensions

### 4.1 EMC7432



LED1: system active LED

J1: Ethernet RJ45 socket

JM1: TTL I/O connector

JM2: RS232 connector

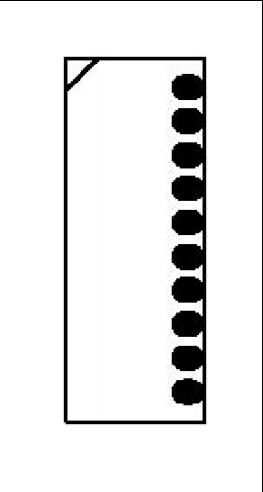
JM4: external power 24V connector

SW2: system reset switch

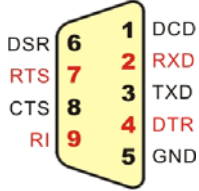


## 5. Pin definitions

### 5.1 JM1 pin definitions

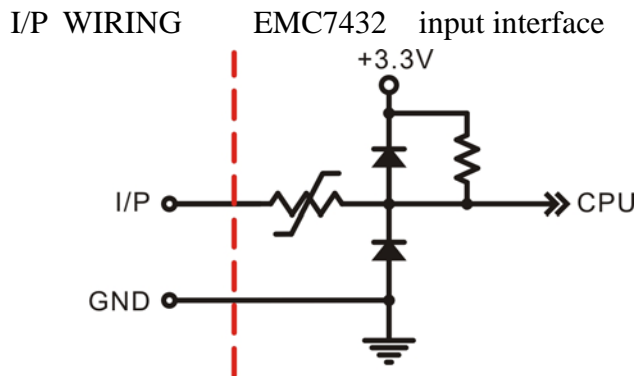
TTL0	1	
TTL1	2	
TTL2	3	
TTL3	4	
GND	5	
TTL4	6	
TTL5	7	
TTL6	8	
TTL7	9	
GND	10	

### 5.2 JM2 RS232 (EMC7432)

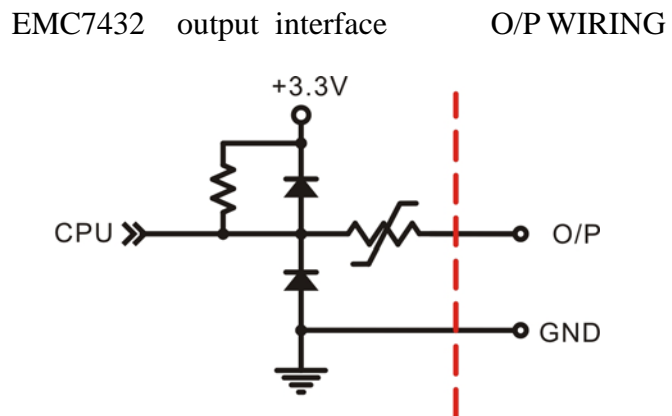
PIN	Descriptions		PIN	Descriptions
6	DSR	<p style="text-align: center;"><b>RS232</b></p>  <p style="text-align: center;"><b>DB9PM</b></p>	1	DCD
7	RTS		2	RXD
8	CTS		3	TXD
9	RI		4	DTR
			5	GND

## 6. I/O Interface diagram

### 6.1 TTL input diagram



### 6.2 TTL output diagram



## 7. Applications

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- RS232 to ethernet converter
- Ethernet to RS232 converter
- Remote TTL signal input
- Remote TTL signal counter
- Remote TTL signal output

## 8. **Ordering information**

PRODUCT	DESCRIPTIONS
EMC7432	Ethernet module to RS232 (8 TTL 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