



## tM-752N Series

Tiny Addressable Serial Converter

### Features

- Integrates any RS-232 serial device
- Includes redundant power inputs: PoE and DC jack
- Provides automatic RS-485 direction control
- Includes a UDP responder for device discovery
- Provides an intuitive web configuration interface
- Terminal block connector for easy wiring
- Tiny form-factor and low power consumption



### Introduction

There are many RS-232 devices that are used in industrial applications. Nowadays, it has become important to link all these RS-232 devices together for automation purposes and for extracting information. Usually, those RS-232 devices are at a distance from the host PC and may be widely distributed throughout the factory. The tM-752N can be used to link multiple distributed RS-232 devices using a single RS-485 network. The RS-485 is renowned for its easy maintenance, simple cabling, stability, reliability and low cost. tM-752N is non-programmable and cost-effective module, while the I-752N is programmable.

### Easy Configuration (DCON & Web)

The tM-752N series supports the DCON protocol, allowing users to modify the settings of the module, such as the serial port configuration and the operation mode, etc. The module also has a built-in web server which provides an intuitive web management interface that simplifies the configuration of the module.

### Onboard 1 KB Queue buffer

The tM-752N series module is equipped with a 1 KB queue buffer for its local RS-232 device. All data can be stored in the queue buffer until the host PC has time to read it. This feature allows the host PC to link many low-speed RS-232 devices without suffering any data loss, and also makes it easier for baud rate converter applications to be implemented.

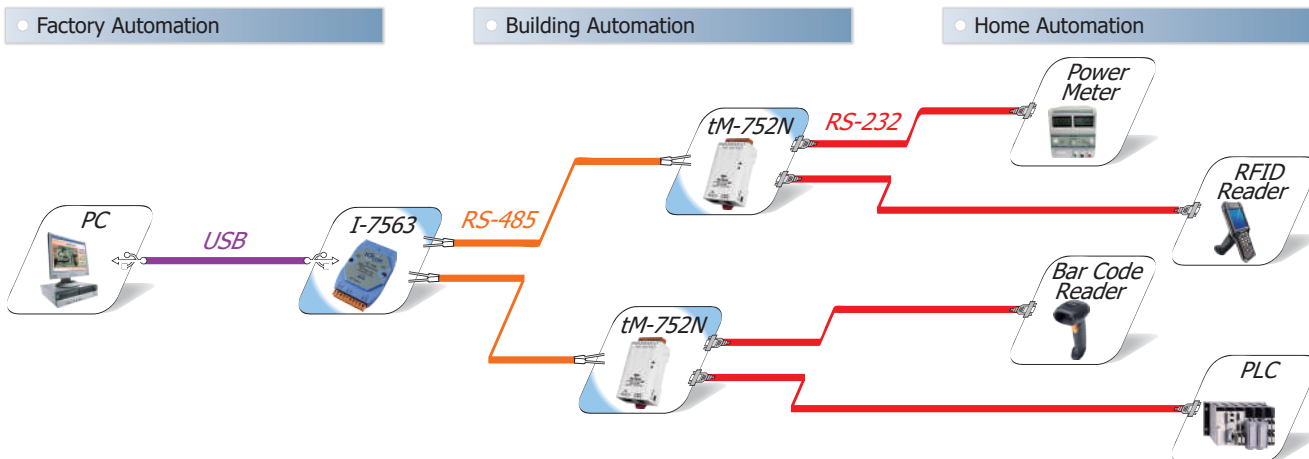
### Self-Tuner ASIC inside

The built-in Self-Tuner ASIC on an RS-485 port can automatically detect and control the send/receive direction of the RS-485 network. Consequently, there is no need for application programs to be concerned with direction control of the RS-485 network.

### Addressable RS-232 to RS-485 Converter

Most RS-232 devices don't support device addressing. The ICP DAS tM-752N series module assigns a unique address for each RS-232 device installed. When a command with a device address is sent to the RS-485 network, the destination tM-752N module removes the address field, and then passes the commands to the specified local RS-232 device. The response from the local RS-232 device will be returned to the host PC via the tM-752N.

### Applications



● Factory Automation

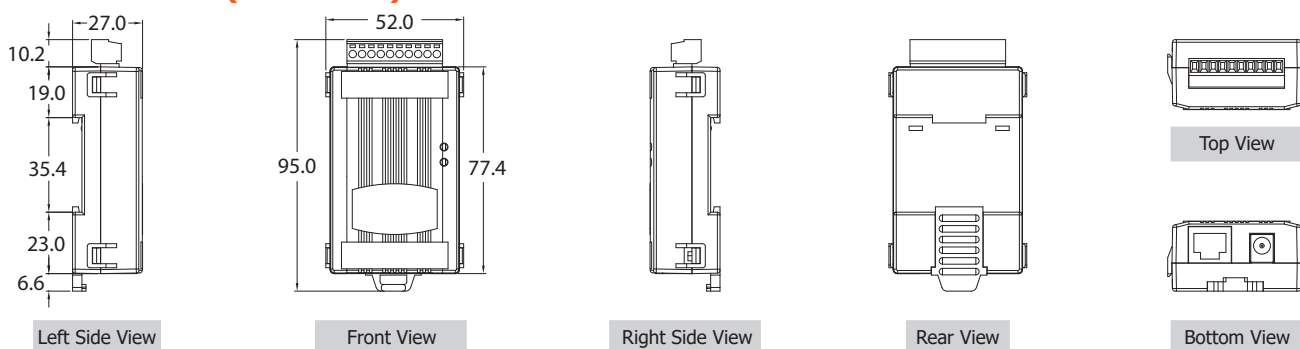
● Building Automation

● Home Automation

## System Specifications

Models	tM-7521	tM-7522
<b>System</b>		
CPU	32-bit MCU	
<b>Communication Interface</b>		
Ethernet	10/100 Base-TX, 8-pin RJ-45 x 1 (Auto-negotiating, Auto-MDI/MDIX, LED indicator), PoE (IEEE 802.3af, Class 1)	
COM1	2-wire RS-485	
COM2	5-wire RS-232	3-wire RS-232
COM3	–	3-wire RS-232
Self-Tuner	Yes, automatic RS-485 direction control	
UART	16C550 or compatible	
<b>COM Port Format</b>		
Baud Rate	115200 bps Max.	
Data Bit	5, 6, 7, 8	
Parity	None, Odd, Even, Mark, Space	
Stop Bit	1, 2	
Connector	10-Pin Removable Terminal Block x 1	
<b>Power</b>		
Power Input	PoE	IEEE 802.3af, Class 1
	DC Jack	+12 ~ 48 Vdc
Power Consumption	0.05 A @ 24 Vdc	
<b>Mechanical</b>		
Casing	Plastic	
Flammability	Fire-Retardant Materials (UL94-V0 Level)	
Dimensions	52 mm x 27 mm x 95 mm (W x L x H)	
Installation	DIN-Rail Mounting	
<b>Environment</b>		
Operating Temperature	-25 °C ~ +75 °C	
Storage Temperature	-30 °C ~ +80 °C	
Humidity	0 ~ 90% RH, non-condensing	
Note:		
5-Wire RS-232: RxD, TxD, CTS, RTS, GND (Non-isolated)		
3-Wire RS-232: RxD, TxD, GND (Non-isolated)		
2-Wire RS-485: DATA+, DATA-, GND (Non-isolated)		

## Dimensions (Units: mm)



## Ordering Information

tM-7521 CR	Tiny Addressable (1x RS-232) to RS-485 Converter with PoE (RoHS)
tM-7522 CR	Tiny Addressable (2x RS-232) to RS-485 Converter with PoE (RoHS)
Includes CA-002 Cable	

## Accessories

CA-002 CR	DC jack to 2-wire Power Cable (RoHS)
NS-205 CR	Unmanaged 5-port Industrial 10/100 Mbps Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged 5-port 10/100 Mbps PoE (PSE) Ethernet Switch (RoHS)
UP0061D-12PA58G CR	Wall mount power supply; Input range 90-240 VAc; Output 12 Vdc/0.5 A, 6 W; two pins USA plug (RoHS)