tM-752N Series NEW

Tiny Addressable Serial Converter

CE FC RoHS ☒ PoE

tM-7521   tM-7522
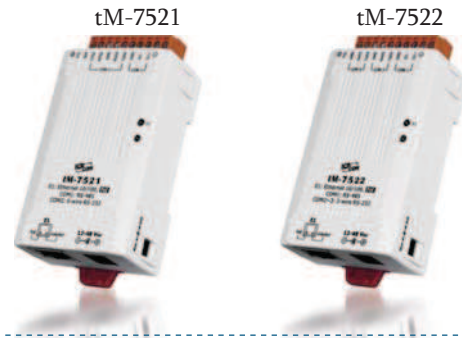
Features ▶▶▶▶

- Integrates any RS-232 serial device
- 10/100 Base-TX Ethernet, RJ-45 x 1 (Auto-negotiating, auto MDI/MDIX, LED Indicators)
- Includes a UDP responder for device discovery
- Provides an intuitive web configuration interface
- Tiny form-factor and low power consumption
- Made from fire-retardant materials (UL94-V0 Level)

- Contains a high-performance 32-bit MCU
- Includes redundant power inputs: PoE and DC jack
- Provides automatic RS-485 direction control
- Supports easy firmware updates via the Ethernet
- Terminal block connector for easy wiring
- RoHS compliant & no Halogen
- Low channel count & cost-effective

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 (compatible with I-752N series), 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.
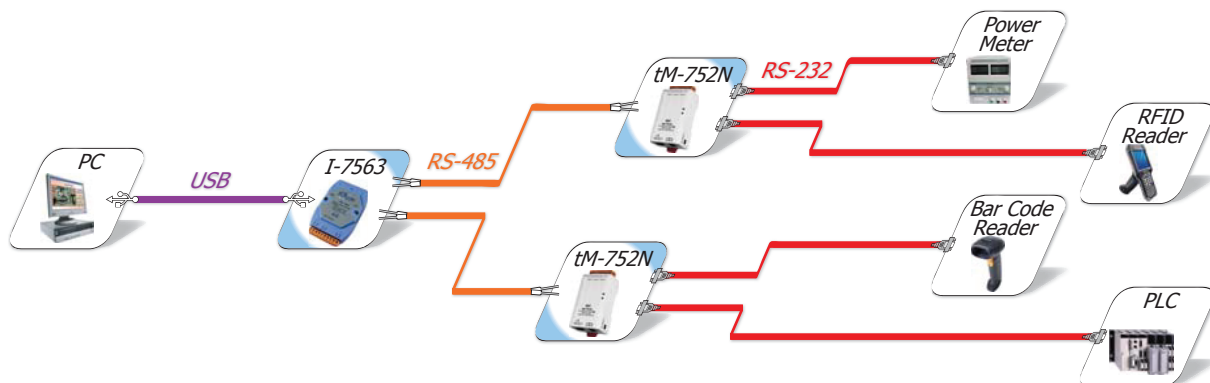
Self-Tuner ASIC inside

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.
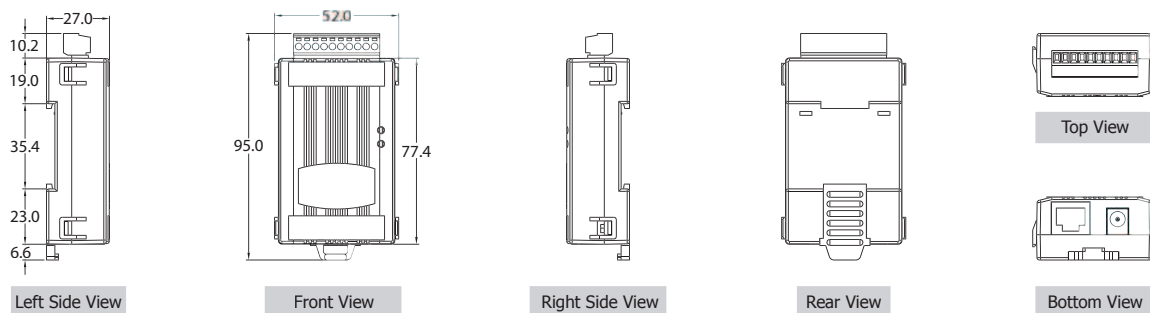
Applications

| ● Factory Automation | ● Building Automation | ● Home Automation |

System Specifications

Models	tM-7521		tM-7522
System			
CPU	32-bit MCU		
Communication Interface			
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		
COM Port Format			
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		
Power			
Power Input	PoE	IEEE 802.3af, Class 1	
	DC Jack	+12 ~ 48 V_{DC}	
Power Consumption	0.05 A @ 24 V_{DC}		
Mechanical			
Casing	Plastic		
Flammability	Fire-Retardant Materials (UL94-V0 Level)		
Dimensions (W x H x D)	52 mm x 95 mm x 27 mm		
Installation	DIN-Rail Mounting		
Environment			
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 (Unit: mm)

27.0
10.2
19.0
35.4
23.0
6.6

Left Side View

52.0
95.0   77.4

Front View

Right Side View

Rear View

Top View

Bottom View

Ordering Information

tM-7521 CR	Tiny addressable serial converter, PoE and 1 RS-232 Port and 1 RS-485 Port (RoHS)
tM-7522 CR	Tiny addressable serial converter, PoE and 2 RS-232 Ports and 1 RS-485 Port (RoHS)
Includes: One CA-002 cable.	

Accessories

CA-002	DC connector to 2-wire power cable, 0.3 M
CA-0915	9-Pin Male-Female D-Sub Cable, 1.5 m
CA-0910F	Female DB-9 to Female DB-9 Cable, 1.0 m
CA-0910N	DB-9 Female-Female 3-wire Null Modem Cable, 1M
CA-PC09F	DB-9 Female connector with plastic cover
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged Ethernet Switch with 4 PoE Ports and 1 RJ-45 Uplink (RoHS)

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Converters, Repeaters, Hubs and Splitter