



## Industrial RS-232 to RS-485/422 Converter, 2500V isolation, DC5V/DC9-30V

### ➤ Features

- Support RS-232 to RS-485/RS-422 Converter;
- Industrial grade rugged ABS housing;
- Plug and play (hot-pluggable, data format auto-sensing and self-adjusting)
- Built-in 600W surge protection, 15kV static protection and circuit protection;
- Support 2500V photoelectric Isolation;
- External DC5V or DC9-30V, no port power from the RS-232 port is required;
- Supports high-speed serial data rates: 300 to 115,200bps;
- Supports up to 128 nodes of RS-485/422 devices;
- RS-485/RS-422 auto-detection, no jumper setting is required;
- Data direction auto-turnaround, no software drivers or flow control is required;
- Built-in selectable 120Ω end-of-line terminator for system reliability;
- Direct DIN-Rail or wall / panel mounting without any unsecured brackets or adapters;
- Working temperature range:-40~85°C;
- Warranty:5years



### ➤ Introduction

The UP-485-C8 is a rugged, industrial-grade, high-speed (300 to 115,200bps), 2500V photoelectric isolated RS-232 to RS-485 / RS-422 converter, It can convert a RS232 serial port signal to two wires high speed half duplex RS485 or a four wires full duplex RS422 signal. This product features opto-isolation circuitry, which effectively protects your RS-232 devices from ground loops, noise problems, transient surges, remote lightning and spikes. The unit supports serial data rates up to 115,200bps and features data format auto-sensing and self-adjusting, no DIP switch or jumpers are required.

UP-485-C8 resistant to radio and electrical interference, such as EMI/RFI, transient surges and ground loops, built-in 600W surge protection, 15KV ESD and circuit protection, and it is designed to realize the bidirectional mutual conversion between RS-232 signal and RS-422/485 signal, widely used in various industrial controls, distributed data acquisition, power system automation, traffic control and other occasions.

### ➤ Application Industries

- Industrial Automation
- Intelligent transportation supervisory system (ITS)
- Long-distance broadcast television transmission system
- New Energy and Utilities
- Electric Power Industry
- Rail transportation industry

## ➤ Specification

Technical parameters	
Standard	Compliant with EIA RS-232, RS-485, RS-422
Interface	RS-232: DB9 interface
	RS-485/RS-422: Industrial terminal block
Baud Rate	300bps~115.2Kbps, rate adaptive signal
LED Indicator	
Power indicator	POW(Red): Always light up when the power is connected properly
Serial port Indicator	≡(Green): Flashes when data is being sent or received
	≡(Yellow): Flashes when data is being sent or received
Power	
Power Supply	External supply DC5V or DC 9~30V
Interface	DB9 interface, industrial terminal block
Lightning protection	600W
Static protection	15KV
Optical Isolation	2500Vrms (AC, 1 min)
Physical Characteristics	
Shell	DIN rail ABS housing
Dimension	117mm×34mm×72mm (H*D*W)
Weight	100g
Transmission distance	
Serial port line	RS-232, 15m@9600bps
	RS-422/RS-485, 1.2km@9600bps
Working Environment	
Working Temp	-40~85°C
Storage Temp	-40~85°C
Relative Humidity	5%~95% (no-condensation)
Warranty	
Warranty	5 Years
Certification	CE, FCC, RoHS

## ➤ Application

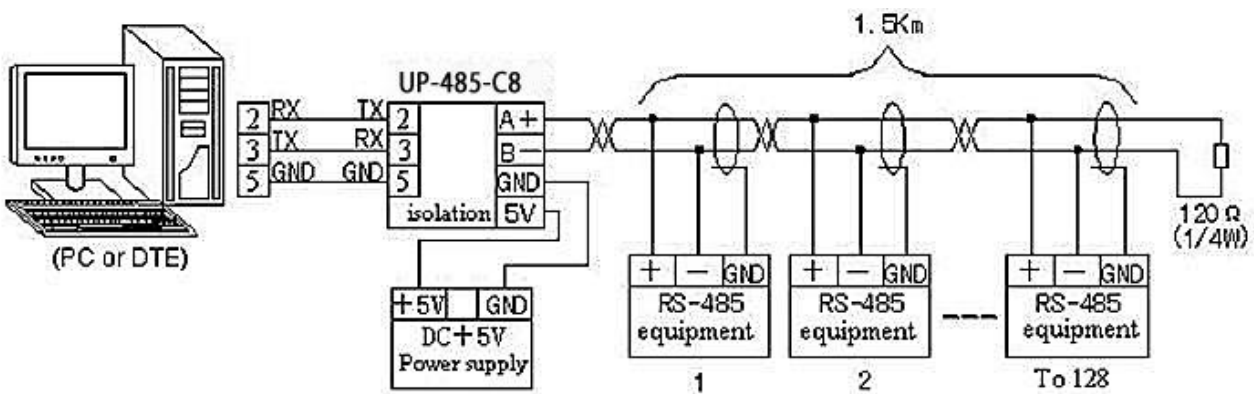


Chart 1 : Master-Slave and half duplex communication

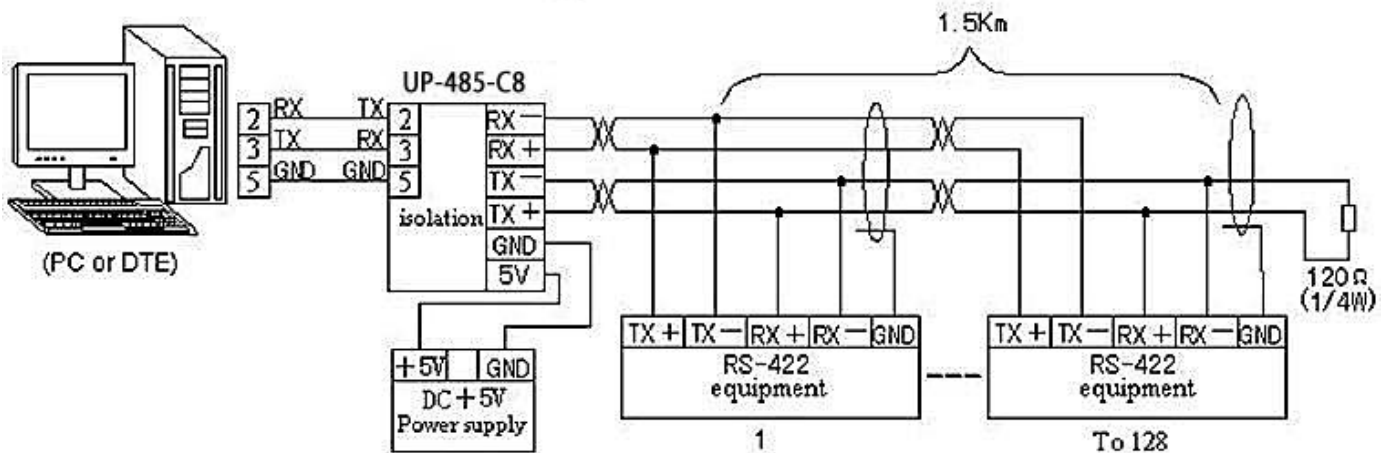


Chart 2 : Master-Slave and half duplex communication

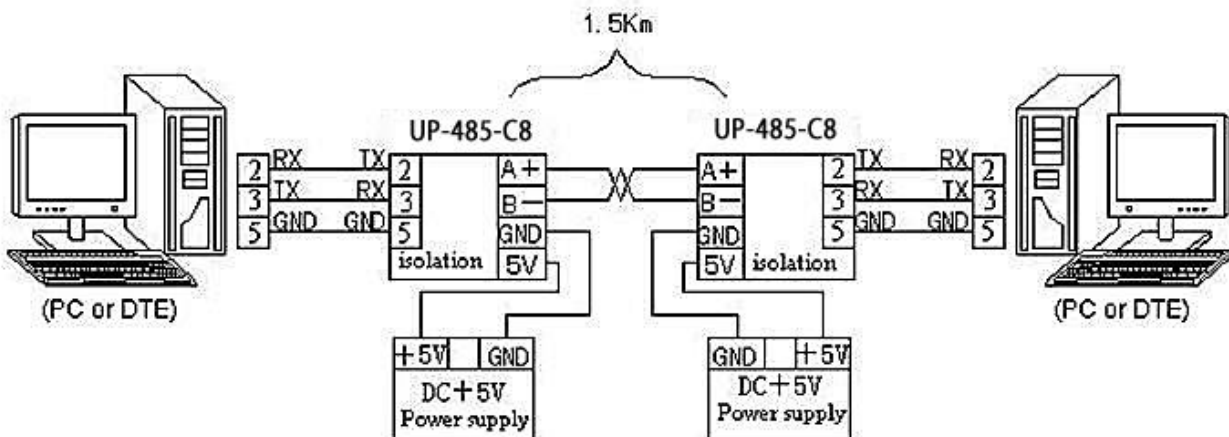


Chart 3 : Extend RS232 communication distance

## ➤ PIN setting

The RS-232 end is DB9pin, the pin female definition is as below

PIN	1	4	6	7	8	2	3	5
Define	short circuit			short circuit		TX	RX	GND

The RS-485/422 definition is as below :

PIN	1	2	3	4	5	8	9	10
RS-485	A+	B-	GND1			DC5V	DC9~	GND2
RS-422	T+	T-		R+	R-		30V	

## ➤ Ordering Information

Model NO.	Description
UP-485-C1	Commercial RS-232 to RS-485 converter, 300bps~115.2Kbps, non-isolated, Port-Powered
UP-485-C2	Industrial RS-232 to RS-485 converter, 300bps~115.2Kbps, non-isolated, Port-Powered
UP-485-C3	Industrial RS-232 to RS-485/422 converter, 300bps~115.2Kbps, non-isolated, Port-Powered
UP-485-C4	Industrial RS-232 to RS-485/422 converter, 300bps~38.4Kbps, 2500V Opto-isolation, Port-Powered
UP-485-C8	Industrial RS-232 to RS-485/422 converter, 2500V Opto-isolation, 300bps~115.2Kbps, DC5V/DC9-30V

## ➤ Packing List

- Industrial RS-232 to RS-485/422 Converter \*1
- User manual \* 1
- Certificate of quality \* 1
- Warranty card \* 1