# BOSHKA: RS-232/RS-485 expert 485C/485TC U485C 485A/485TA U485A 485A1 RS-232/RS-485/RS-422 Converter

# **1** Introduction

BOSHIKA RS-232/RS-485/RS-422 converters are used to extend RS-232 communication distance to 1200m (9600bps). They are also used to establish multi-drop communication system of PC-PC or PC-MCU, etc. BOSHIKA electronics is ISO9002 certified. BOSHIKA RS-232/RS-485/RS-422 converters won gold medal of international measurement and control exhibition.

# 2 Hardware Installation

All Model products are DB-9/DB-9 size size. The DB-9 side of converter can be directly plugged into DB-9 port of RS-232 socket (male) .If RS-232 port of your PC is DB-25, then a DB-9/DB-25 adaptor is needed.

DB-9:2-RXD,3-TXD,5-GND. DB-25:2-TXD,3-RXD,7-GND.

It is suggested that RS-485 (or RS-422) must GND-connected. All RS-485 (or RS-422) port in the same net should have commom GND.If distance is over 100m or high viltage exists, then you'd better use optical-isolated converters .

### 3 Software

No software settings, no driving software is needed! Only RXD, TXD, GND of RS-232 are needed. RTS or DTR is not used.BOSHIKA converters support all software of RS-232.

#### 4 Characteristics

Model	Function	Duplex	Power	
485C	RS-232/RS-485/RS-422 converter	Full or half duplex	Port-powered	
485TC	Optical-isolated RS-232/RS-485/RS-422 converter	Full or half duplex	Port-powered	
485A	RS-232/RS-485 converter	half duplex	Port-powered	
485TA	Optical-isolated RS-232/RS-485 converter	half duplex	Port-powered	
U485C	Optical-isolated RS-232/RS-485/RS-422 converter	Full or half duplex	5V DC	
U485A	Optical-isolated RS-232/RS-485 converter	half duplex	5V DC	
C-series	es converters support Full & half duplex multi-drop communication simuteniously.			
T-series	ries converters are port-powered optical-isolated RS-232/RS-485/RS-422converters.			

RS-485 always means half-duplex. RS-422 always means full-duplex.Model 485C and 485A support up to 115.2Kbps. Model U485C and U485A support up to 9600bps (DC5 $\pm$ 0.5V, <50mA), and also can be port-powered just as non-optical-isolated convetrer(through jump pin setting). Model 485TC and 485TA support up to 9600bps and need no power supply!

BOSHIKA RS-232/RS-485/RS-422 converters are 128-nodes type .Optical isolated RS-232/RS-485/RS-422 converters can isolate 2500V voltage.

# 5 Photos of products



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### PIN DISCRIPTION

DB-9 male of 485C or 485TC(half duplex):				
	8-9	1-5	2-4	3
Jump set		RS-485 (+A)	RS-485 (—B)	GND

 $\ast$  1-5 connected as (+A) of  $\,$  RS-485 by Jump.

\*\* 2-4 connected as (+B) of RS-485 by Jump.

#### DB-9 male of 485C or 485TC(full duplex): :

7-8	1 (RS-422)	2 (RS-422)	4 (RS-422)	5 (RS-422)	3
Jump set	T+(+Y)	T-(—Z)	R-(—B)	R+ (+A)	GND

485A/485TA DB-9 MALE	1	2	3
	RS-485 (+A)	RS-485 (—B)	GND

U485C has just one more than 485C:	6
	+5V

If U485C set J1 ON and J2  $\,$  ON  $\,$  ,then U485C is port-powered!

U485A	1	2	6	3
DB-9 male	RS-485 (+A)	RS-485 (—B)	+5V	GND

If U485A set J1 ON and J2  $\,$  ON  $\,$  , then U485A is port-powered!

#### 6、485C、485TC、U485A、U485C Jump Set



