Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

PRODUCT FEATURES

- Extend RS-232 data signals up to 1.2 km (4,000 ft.)
- Change RS-232 TD and RD to balanced RS-485 signals
- Baud rates up to 115.2 kbps
- 2-wire or 4-wire, full-duplex operation

Model 485COSR, RS-232 to RS-485 converter, converts unbalanced, full-duplex RS-232 signals to balanced full-duplex (4-wire) or half-duplex (2-wire) RS-485 signals.

The RS-232 port has a female DB25S connector with pins 2 (TD input) and 3 (RD output) supported. Protective Ground (pin 1) and Signal Ground (pin 7) are also passed through. Pins 4 (RTS) and 5 (CTS) are tied together. Pins 6 (DSR), 8 (CD), and 20 (DTR) are tied together, but not passed through the converter.

The RS-485 port has a male DB25P connector with Send Data outputs on pins 2 and 14, and Receive Data inputs on pins 3 and 16, or 5 and 17. No special software requirements are needed since the RS-485 driver is enabled by the first transition on the RS-232 side of the Transmit Data line (Pin 2). Any transmission on the TD line keeps the RS-485 driver enabled by preventing the monostable multivibrator from timing out. The transmitter is disabled approximately 1 ms after the last transmitted character. This 1 ms timeout allows continuous transmission of data at 9600 baud or higher.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION	RS-232	RS-485
485COSR	RS-232 to RS-422 Converter	DB25 Female	DB25 Male

ACCESSORIES

SMI6-12-V-P230-C1 - Power Supply, 12 VDC 6 Watt, 2.5MM Plug, International AC Input, International AC Blades

SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps maximum
RS-232 Connector	DB25 female
RS-485 Connector	DB25 male
Operation	2-wire half-duplex or 4-wire full-duplex
Signals	Converts RS-232 to RS-485
Biasing Resistors	4.7k Ohms
Termination	None
POWER	
Power Requirement	12VDC external power supply (sold separately)
MECHANICAL	
Dimensions	5.4 x 6.2 x 1.5 cm (2.1 x 2.4 x 0.6 in)
ENVIRONMENTAL	
Operating Temperature	0 to +70 °C (+32 to +158 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0-95% Non-condensing
APPROVALS / CERTIFICATIONS	
FCC, CE	
2014/30/EU	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive (RoHS)
2012/18/EU	Waste Electrical and Electronic Equipment (WEEE)

Component Replacements for Changing Baud Rate Timeouts

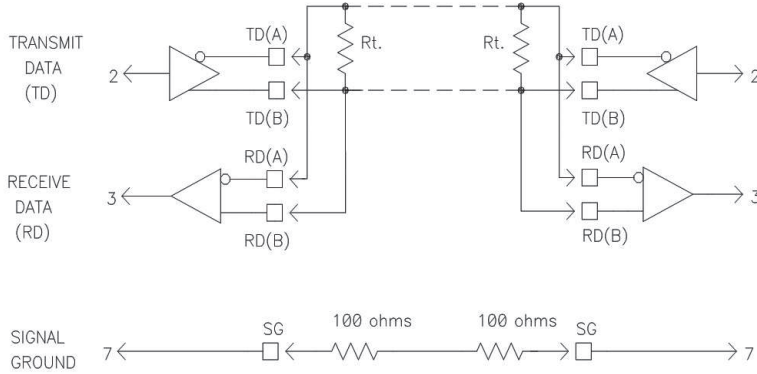| Baud Rate	Time (ms)	Resistor (R6) (Ohm)	Capacitor (C7) (Mfd)
300	33.3	330K	0.1
600	16.6	160K	0.1
1200	8.33	820K	0.01
2400	4.16	430K	0.01
4800	2.08	200K	0.01
9600	1.04	100K	0.01
19200	.520	56K	0.01
38400	0.260	27K	0.01
57600	0.176	16K	0.01
115200	0.0868	8.2K	0.01

RS-232 to RS-485 Converter

Model 485COSR

INTERCONNECTION DRAWING

SCHEMATIC DIAGRAM

MODEL 485COSR

FEMALE DB25S CONNECTOR

MALE DB25P CONNECTOR

* OPTIONAL THRU HOLE COMPONENTS.
1) R3 IS AN OPTIONAL TERMINATION RESISTOR.
2) R5 AND C6 ARE FOR BAUD RATES OTHER THAN 9600 BAUD. REMOVAL OF R6 AND C7 MAY BE NEEDED. SEE TABLE 1 FOR VALUE CHANGES.
3) RESISTORS R11 AND R12 ALLOW CHANGES TO THE OFF STATE BIASING. REMOVAL OF R1 AND R4 MAY BE REQUIRED.

NOTE: 0 OHM RESISTOR R7 TO BE REMOVED FOR RECEIVER CONSTANT ENABLE. AFTER R7 IS REMOVED, A JUMPER WIRE FROM PIN 18 TO PIN 21 CAN BE INSTALLED TO DISABLE THE RECEIVER DURING TRANSMIT DATA.