



USB-485C

USB 2.0 To RS485/RS422 Adapter -DB9

www.serialcomm.com

Datasheet Revision 1.3

INTRODUCTION:

The SerialComm USB-485B is a bi-directional USB-powered USB to RS-485 / RS-422 converter in a 9 pin format. It can convert any standard full duplex USB port to any half duplex RS-485 port or full duplex RS-422. In simple terms, it will convert any USB signal to a RS-485 signal or RS-422 signal and vice versa. The unit is powered from the USB port. It also supports data direction auto-turnaround. Therefore, no external power or flow control is required. The USB-485B has a USB type A female connector on the USB side and a DB9 male connector or 5-way terminal block on the RS-485 / RS-422 side. Separate terminal block is included in package.

The USB-232-2 uses the latest FTDI chipset and is fully compatible with (32 bit) Windows 7/ Vista / XP / Server 2008 / 2005 / 2003 / 2000 / 98, (64 bit) Windows 7 / Vista / XP / Server 2008 / 2005 / 2003, Win CE, Mac 8.6 / 9.x / 10.x and Linux.

CERTIFICATIONS:



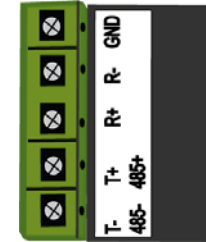
GENERAL FEATURES:

- Adds one RS-485 or one RS-422 port to your device using the USB port
- Plug & play (hot-pluggable, data format auto-sensing and self-adjusting)
- USB 2.0 and 1.1 compliant
- Supports 300 baud to over 1 mbps baud rates
- Supports (32 bit) Windows 7 / Vista / XP / Server 2008 / 2005/ 2003 / 2000 / 98. (64 bit) Windows 7 / Vista / XP / Server 2008 / 2005 / 2003, Win CE, Mac 8.6 / 9.x / 10.x and Linux
- 3 feet (1m) cable for convenience
- No IRQs, IO, DMA required. No IRQ Conflicts
- Supports remote wakeup and power management
- Easy configuration utility
- Web based driver update utility
- 5 Year Manufacturer's Warranty
- RoHS, CE, FCC and ISO 9001 Compliance Certified
- Surface Mount RoHS Compliant Technology manufactured to ISO 9001 Standards

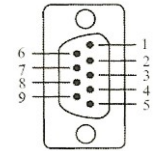
PINOUT CONFIGURATION:

RS-485 / RS-422 SIDE – DB9 MALE

RS-485	485-	485+			GND
RS-422	T-	T+	R+	R-	GND
PIN #	1	2	3	4	5



MALE DB9



SPECIFICATIONS:

PART NUMBER:	USB-485C
STANDARDS:	USB 2.0 and 1.1 Standard - RS485 & RS422 Standards
BAUD RATES:	From 300 Baud To over 1 Mbps
POWER SOURCE:	Port Powered From USB port
CURRENT CONSUMPTION:	Less Than 100 mA
CONNECTOR TYPES:	USB Side: Type A Female and RS-485 Side: DB9 Male or 5-Way Terminal Block
DISTANCE:	USB Side: 10 ft (3m) and RS-485 Side: 4000ft (1.2km)
WEIGHT:	2.7oz (76 grams)
DIMENSIONS:	RS-485/RS-422 Housing Without Terminal Block: 1.98" X 1.43" X 0.72" (50.2 mm X 36.2 mm X 18.2 mm) RS-485/RS-422 Housing With Terminal Block: 2.88" X 1.43" X 0.72" (72.9 mm X 36.2 mm X 18.2 mm)
OPERATING TEMP.:	14° F to 140° F (-10°C to 60° C)
OPERATING HUMIDITY:	5% To 95% - No Condensation

TROUBLESHOOTING INSTRUCTIONS:

RS-232 TO RS-485 MODE OPTION:

Perform a loop back test on a pair of USB-485C converters. Connect the USB female connector of the cable to the USB of the PC. Install the USB / RS-485 / RS-422 Cable Driver on PC per installation instructions provided. Attach the other RS-485 converter to a PC and using two instances of a HyperTerminal program send a character from one and see if it echoes to the other. This will test both transmit and receive functions in RS-485 mode.

RS-232 TO RS-422 MODE OPTION:

Perform a loop back test on one USB-485C converter. Connect the USB female connector of the cable to the USB of the PC. Install the USB / RS-485 / RS-422 Cable Driver on the PC per installation instructions provided. Tie signals T+ to R+ and T- to R- of the USB-485C. Using HyperTerminal send a character from one and see if it echoes to the other. This will test both transmit and receive functions of the converter in RS-422 mode.

APPLICATIONS:

RS-232 TO RS-485 MODE OPTION:

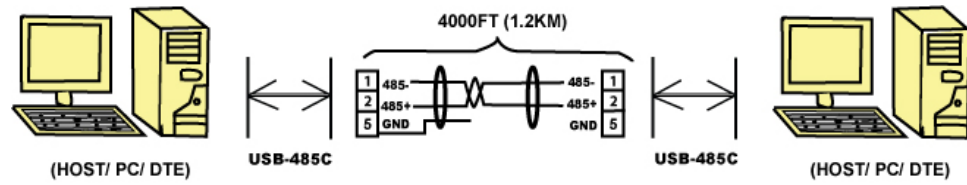


FIGURE 1: EXTENDING USB DATA DISTANCE IN RS-485 MODE

RS-232 TO RS-422 MODE OPTION:

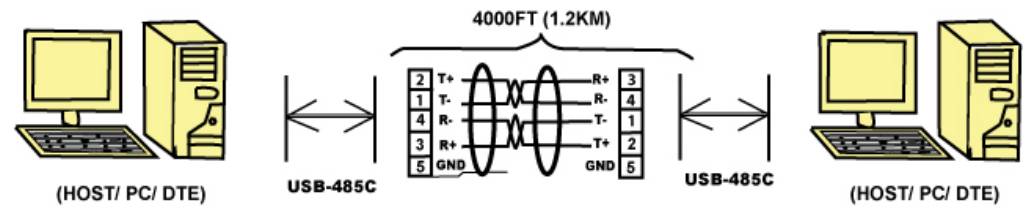


FIGURE 3: EXTENDING RS-232 DATA DISTANCE IN RS-422 MODE

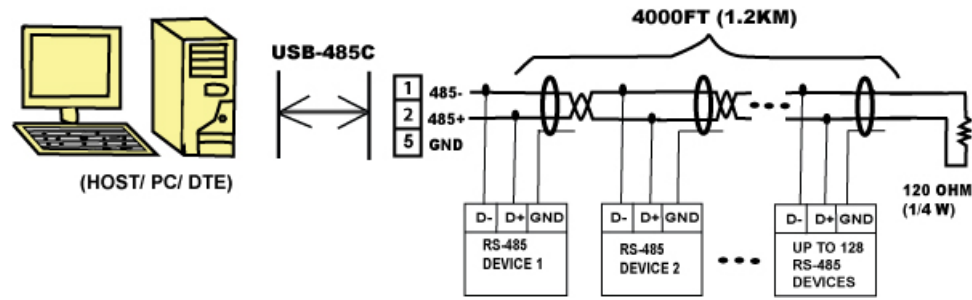


FIGURE 2: MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-485 MODE

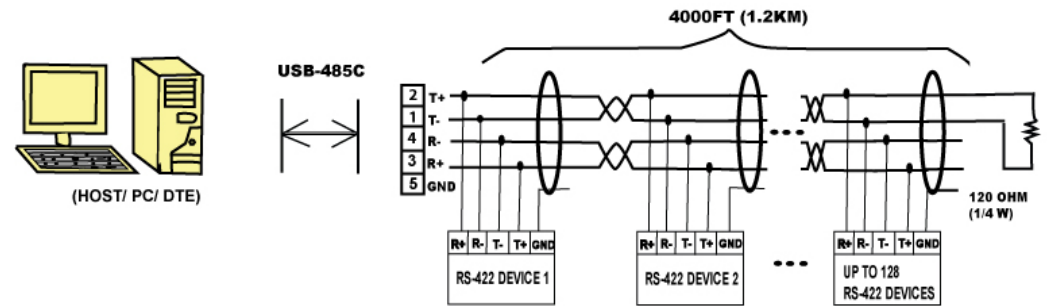


FIGURE 4: MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-422 MODE