USB to 3-3V SERIAL UART Cable, Prolific Chipset

Features

- Enables USB-to-Serial TTL conversion/bridging
- Connects to device (Microcontroller) UART or I/O
- Programmable baud rate generator can be configured to support data transfer rates from 75 to 12M baud at TTL levels
- I/O includes TX, RX, RTS, CTS, VCC, and GND
- USB 2.0 full speed compatible
- Supports 5,6,7 or 8 Data bits, 1, 1.5, or 2 Stop bits, and Parity setting of None, Even, Odd, Mark, or Space
- Parity error, Frame error, and Serial Bread Detection supported
- Data flow controlled by RTS/CTS, DSR/DTR, or XON/XOFF
- Configurable 512-byte Bi-Directional Data Buffer 256-byte out/256-byte in, or 128-byte out/384-byte in
- Internal EEPROM with allocated user writable area
- On-Chip One-Time Programming ROM for device start-up configurations
- PCB assembly powered by USB Bus
- External Logic powered from USB Port at +3V
- On-Chip USB1.1 Transceiver, 5V->3.3V Regulator
- Operating temperature range: -40C to +85C
- Zero-Cost Royalty Free Drivers and Virtual Comm Port Software
- Drivers (USB and DLL software interface) and Virtual Comm supports:
  W98, 98SE, ME, Win2K, Win2003, WinXP, Win2008, WinXP-64, Win7, Win7-64, WinVista, WinVista64, WinXP-Embedded, WinCE v4.2, v5.0, v6.0, MAC OS8, OS9, OSX, and Linux 2.4+
- Available Length is 6-Feet (1.8 m)
- Available in either Black or Translucent USB connector shell overmold
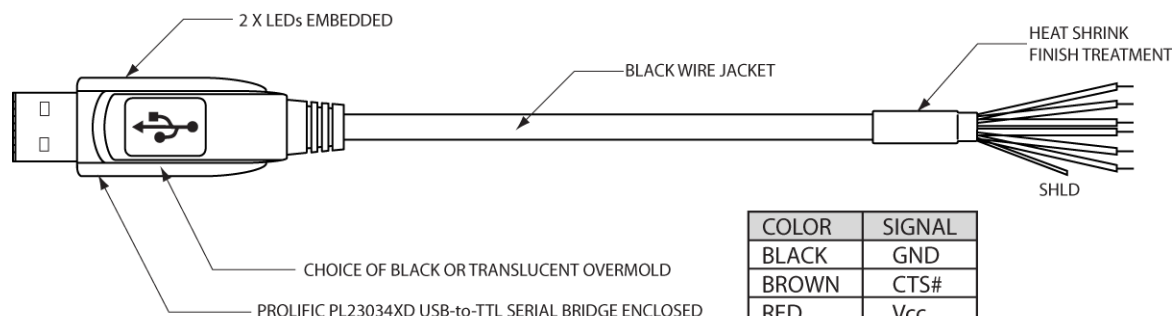
Description

The RN-SRL-PRO3V is a USB-to-Serial TTL bridge cable available in Black or Translucent Overmold USB-A male connectors, having connection-ready 6 conductor tinned-leads at the opposite end. Each cable is made up to a 6 foot length (1.8m), with a heat-shrink finish treatment. At the core of each cable assembly is the RN-SRL-PRO3V USB-to-Serial TTL Bridge Board Module (PCB Assembly) designed to accommodate a quick and easy means to interconnect to devices having TTL level Serial interfaces which require conversion to USB.The RN-SRL-PRO3V cable assembly is assembled with a fixed TTL level of +3.3V, and is RoHS compliant.

Deriving its power from the USB bus connection, the RN-SRL-PRO3V is USB 2.0 Full Speed compatible and inherently complies with all of the Prolific–PL2303HXD documented features and specifications. RN-SRL-PRO3V also includes support for data transfer rates of up to 12Mbaud and support and User Customizable Descriptors for OTPROM programming including User-defined serial numbers. This programmability feature is extremely useful in cases where security is an issue, and where password protection is required for applications involving file transfer processes and other security applications. Each RN-SRL-PRO3V (Translucent) is equipped with two LEDs preconfigured as data transmission activity indicators for the TX (RED) and RX (GREEN) signal lines. Support files and application utilities are available to redefine the fixed function purpose of either or both LEDs as desired.

Software drivers are zero-cost and royalty-free and readily available from various online sources as well as from our support site:
http://rovingnetworks.com/support.php

Mechanical Details –Wire Descriptor

COLOR	SIGNAL
BLACK	GND
BROWN	CTS#
RED	Vcc
ORANGE	TxD
YELLOW	RxD
GREEN	RTS#
BARE	SHLD

Wire Descriptor

Wire Color	Connection	Function	Description
Black	GND	GND	Ground Supply
Brown	CTS#	Input	Clear to Send - Handshake
Red	V_{cc}	Output	+5V output
Orange	TXD	Output	Transmit Async Data Output
Yellow	RXD	Output	Receive Async Data Input
Green	RTS#	Input	Request to Send - Handshake
Bare	SHLD	SHLD GND	Shield Ground

Operating Parameters

Parameter	Reference	Min.	Typ.	Max.	Conditional Notes
V_{DD_5}	Output Power Voltage	4.25V	5.0V	6.5V	Value depends on mating Device Port
I_{DD}	Output Driving Capacity	--	8mA	--	<2.5mA during suspend mode
T	Operating Temps.	-40C		+85C	

I/O Pin characteristics

Pin Characteristics	Reference	Min.	Typ.	Max.	Conditional Notes
V_{O_33}	Output Power Supply	2.97V	3.3V	3.63V	Current source=4mA
V_{IH}	Output Voltage High	2.4V	--	--	Current source=4mA
V_{ol}	Output Voltage Low	--	--	0.4V	Current source=4mA
V_{in}	Input Switching Threshold	0.8V	--	2.0V	

Ordering Information

Part Number	Description
RN-SRL-PRO3V-BLK	USB to 3V serial UART cable, Prolific chipset, Black housing, 1.8 meter cable length, tin leads
RN-SRL-PRO3V-CLR	USB to 3V serial UART cable, Prolific chipset, Clear housing, LED status, 1.8 meter cable length, tin leads

Related Products

Part Number	Description
RN-SRL-FTD5V-BLK	USB to 5V serial UART cable, FTDI chipset, Black housing, 1.8 meter cable length, tin leads
RN-SRL-FTD5V-CLR	USB to 5V serial UART cable, FTDI chipset, Clear housing, LED status, 1.8 meter cable length, tin leads

Custom Configurations

The TTL to serial cables are available in the following custom options for both, the FDTI and PROLIFIC versions with extended lead times.

Parameter	Description
Length	12, 24, 36, 48, 60 or 72 inches
End Terminations	• Tinned Lead • 8-pin, 2mm pitch, keyed • 6-way, 0.1in pitch • Audio Jack, Male • PICAXE-DB9-F • PICAXE-3Pin • PICAXE-Audio Jack-Male

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