

## USB to 5V Serial UART Cable, FTDI Chipset



### Features

- Enables USB-to-Serial TTL conversion/bridging
- Connects to device (Microcontroller) UART or I/O
- Data transfer rates from 300K to 3M baud at TTL levels
- I/O includes TX, RX, RTS, CTS, VCC, and GND
- USB 2.0 full speed compatible
- Supports 7 or 8 Data bits, 1 or 2 Stop bits, and parity setting of None, Even, Odd, Mark, or Space
- Data Flow controlled by RTS/CTS or XON/XOFF
- internal EEPROM with allocated user writable area
- FTDIChip-ID™ Security feature supported
- PCB assembly powered by USB Bus
- External Logic powered from USB Port at +5V or +3V
- Factory Set for +3.3V CMOS drive outputs and 5V safe TTL inputs
- Operating Temperature ranging from -40C to +85C
- OHCI, UHCI, and EHCI host controller compatible
- Zero-Cost Royalty Free Drivers and Virtual Comm Port Software
- Drivers (USB and DLL software interface) supports: W98, 98SE, ME, Win2K, Win2003, WinXP, Win2008, WinXP-64, Win7, Win7-64, WinVista, WinVista64, WinXP-Embedded, WinCE v4.2, v5.0, v6.0, and Linux 2.4+
- 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 lengths up to 6-Foot (1.8 m)
- Available in either Black or Translucent USB connector shell overmold

### Description

The RN-SRL-FTD5V 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-FTD5V-DGL 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.

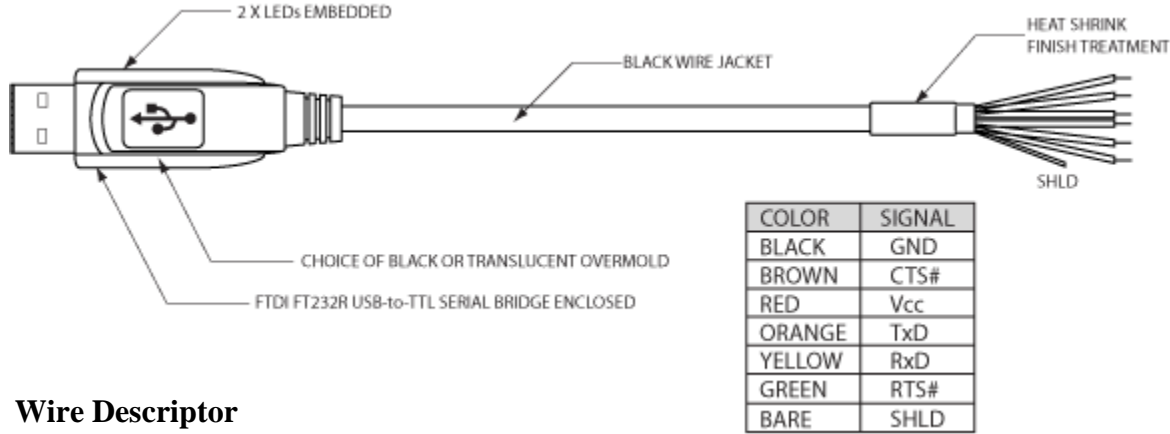
The RN-SRL-FTD5V-DGL cable assembly is assembled with a fixed TTL level of +5V, and are RoHS compliant.

Deriving its power from the USB bus connection, the RN-SRL-FTD5V-DGL is USB 2.0 Full Speed Compatible and inherently complies with all of the FTDI-FT232R documented features and specifications. It also includes support for data transfer rates of up to 3Mbaud and supports the FTDIChip-ID™ feature as well. This feature involves the factory-installed unique internal serial number for use 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-FTD5V (Translucent) is equipped with two LEDs preconfigured as data transmission activity indicators for the TX (RED) and RX (GREEN) signal lines. Redefining the fixed function purpose of either or both LEDs may be possible through use of third party software and utilities.

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



## Wire Descriptor

Wire Color	Connection	Function	Description
Black	GND	GND	Ground Supply
Brown	CTS#	Input	Clear to Send – Handshake
Red	V <sub>cc</sub>	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 <sub>CC</sub>	Output Power Voltage	4.25V	5.0V	5.25V	Value depends on mating Device Port
I <sub>o</sub>	Output Power Current	--		-75mA	<2.5mA during suspend mode
T	Operating Temps.	-40C		+85C	

## I/O Pin characteristics

Pin Characteristics	Reference	Min.	Typ.	Max.	Conditional Notes
V <sub>oh</sub>	Output Voltage High	3.2V	4.1V	4.9V	Current source=6mA
V <sub>ol</sub>	Output Voltage Low	0.3V	0.4V	0.6V	Current source=6mA
V <sub>in</sub>	Input Switching Threshold	1.0V	1.2V	1.5V	
V <sub>Hys</sub>	Input Switching Hysteresis	20mA	25mA	30mA	

### Ordering Information

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

### Related Products

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

### 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	<ul style="list-style-type: none"> <li>• Tinned Lead</li> <li>• 8-pin, 2mm pitch, keyed</li> <li>• 6-way, 0.1 in pitch</li> <li>• Audio Jack, Male</li> <li>• PICAXE-DB9-F</li> <li>• PICAXE-3Pin</li> <li>• PICAXE-Audio Jack-Male</li> </ul>

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