USB-232-2
USB 2.0 To RS-232 Converter – DB9
Datasheet Revision 2.5

GENERAL FEATURES:
• Plug-and-Play (hot-pluggable)
• USB 1.1 and 2.0 compatible
• Port powered - no external power needed
• Supports 300 baud to 460,800 baud rates
• Supports all RS-232C signals: TX, RX, RTS, CTS, DTR, DSR, RI and GND
• 3 feet (1m) cable for convenience
• Transmit/Receive LED indicators
• Data direction auto-turnaround - no flow control necessary
• Internal 128/385 byte TX / RX buffers
• No IRQs, IO, DMA required. No IRQ conflicts
• Supports remote wakeup and power management
• Easy to install included drivers
• Built-in surge and static protection
• 5 Year manufacturer’s warranty
• RoHS, CE, and FCC certified

DESCRIPTION:
The SerialComm USB-232-2 is a bi-directional USB-powered USB to RS-232 converter which makes a full-duplex RS-232C port available to a PC via the USB port. The USB-232-2 has a db-9 male connector on the RS-232C serial port, and a USB type A female on the USB port. The adapter is powered from the USB port; no external power is required.

The USB-232-2 uses the latest FTDI chipset and is fully compatible with Windows 10 32/64, Windows 8 32/64, Windows 7 32/64, Vista 32/64, Server 2003, Server 2008, Server 2008 R2, XP 32/64, 2000, 98Se, CE, Mac 8/9/X, Linux.

CERTIFICATIONS:

PINOUT CONFIGURATION:
RS-232 SIDE – DB9 MALE

<table>
<thead>
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<th>SIGNAL</th>
<th>DCD</th>
<th>DTR</th>
<th>DSR</th>
<th>RTS</th>
<th>CTS</th>
<th>TX</th>
<th>RX</th>
<th>GND</th>
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<tbody>
<tr>
<td>PIN #</td>
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<td>6</td>
<td>7</td>
<td>8</td>
<td>2</td>
<td>3</td>
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SPECIFICATIONS:

COMMUNICATION

STANDARDS: USB 2.0 and 1.1 Standards - EIA/TIA RS-232C Standard

OPERATING SYSTEM:

BAUD RATES:
From 300 bps to 460,800 bps

CONNECTOR TYPES:
USB Side: Type A Female and RS-232 Side: DB9 Male

DISTANCE:
USB Side: 10ft (3m) and RS-232 Side: 16 ft (5m)

LED INDICATIONS:
RS-232 TX (Red) and RX (Green)

DRIVERS:
FTDI drivers are included in package

ELECTRICAL

POWER SOURCE:
Port Powered From USB Port

CURRENT CONSUMPTION:
Less Than 100 mA

STATIC PROTECTION:
15KV Electric Static Discharge (ESD) Protection

SURGE PROTECTION:
600W Surge Protection

CONVERSION IC:
FTDI FT232RL

MECHANICAL

WEIGHT:
2.0oz (58 grams)

DIMENSIONS:
RS-232 Housing: 2.33” X 1.42” X 0.58”
Cable Length: 3 ft (1m)

ENVIRONMENTAL

OPERATING TEMP.:
14° F to 140° F (-10°C to 60° C)

STORAGE TEMP.:
-40° F to 185° F (-40°C to 85° C)

OPERATING HUMIDITY:
5% To 95% - No Condensation

QUALITY

PRODUCT SAFETY:
CE, FCC and RoHS Conformance Certified

QUALITY MANAGEMENT:
Manufactured and Distributed to ISO 9001:2008

RELIABILITY:
Low Failure Rate – 99+% Reliability Since Inception

WARRANTY:
5 Year Replacement Warranty
TROUBLESHOOTING INSTRUCTIONS:

Using one USB-232-2 unit:

1. Perform a loop back test on one unit:
   a) Connect the TX to RX on the RS232 port.
   b) Connect the USB connector on the cable to the USB port of the computer.
   c) Install the USB / RS232 FTDI driver on the computer per instructions provided.
   d) Running a hyper terminal program on the PC, send ASCII characters to the USB-232-2 converter from one PC port, and check that the characters are received at the same PC port. This tests that the transmit and receive functions of the USB-232-2 unit is working properly.
   e) When there is constant RX data you should see the GREEN light blink. When there is constant TX data you should see the RED light blink.

Using two USB-232-2 units:

1. Perform a loop back test on two units:
   a) Connect the two TX to RX and RX to TX on two USB-232-2 RS-232 ports. Or connect TX to TX and RX to RX with a null modem.
   b) Connect the USB connectors on the cables to two USB ports on the computer.
   c) Install the USB / RS232 FTDI driver on the computer per instructions provided.
   d) Running hyper terminal programs on both PCs, send ASCII characters to the USB-232-2 converter from one PC port, and check that the characters are received at the 2nd PC port. Repeat the test in the opposite direction. This tests that the transmit and receive functions of both USB-232-2 units are working properly.
   e) The GREEN light should flash when there is RX data and RED when there is TX data.