

USB-TTL-5 PRODUCT
IS A COMBINATION
OF PRODUCTS USB-232-2
AND TTL-232-5P
BOTH DATASHEETS
ARE INCLUDED
IN THIS PDF FILE

USB-232-2

USB 2.0 To RS-232 Converter – DB9
Datasheet Revision 1.2

INTRODUCTION:

The SerialComm USB-232-2 is a bi-directional USB-powered USB to RS-232C converter in a 9 pin format. It can convert any standard full duplex USB port to any full duplex RS-232C port. In simple terms, it will convert any USB signal to a RS-232 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-232-2 has a USB type A female connector on the USB side and a DB9 male connector on the RS-232 side.

The USB-232-2 uses the latest FTDI chipset and is fully compatible with Windows Vista / XP / Server2003 / 2000 / 98 (32 bit). Vista / XP / Server 2003 (64 bit), Win CE, Mac 8.6 / 9.x / 10.x and Linux.

CERTIFICATIONS:



GENERAL FEATURES:

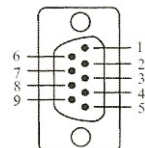
- Adds one RS-232 port to your device using the USB port
- Plug & play (hot-pluggable, data format auto-sensing and self-adjusting)
- USB 1.1 and 2.0 compliant
- Supports 300 baud to 460,800 baud rates
- Supports all RS-232 signals: TX, RX, RTS, CTS, DTR, DSR, RI and GND
- Supports Windows Vista / XP / Server 2003 / 2000 / 98 (32 bit). Vista / XP / Server 2003 (64 bit), Win CE, Mac 8.6 / 9.x / 10.x and Linux
- 3 feet (1m) cable for convenience
- Transmit / Receive LED indicators.
- Internal 128/385 Byte TX / RX buffers
- 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, ISO 9001 and IAF Compliance Certified
- Built-in surge protection, static protection and circuit protection
- Surface Mount RoHS Compliant Technology manufactured to ISO 9001 Standards

PINOUT CONFIGURATION:

RS-232 SIDE – DB9 MALE

| SIGNAL | DCD | DTR | DSR | RTS | CTS | TX | RX | GND |
|--------|-----|-----|-----|-----|-----|----|----|-----|
| PIN # | 1 | 4 | 6 | 7 | 8 | 2 | 3 | 5 |

MALE DB9



SPECIFICATIONS:

| | |
|----------------------|---|
| PART NUMBER: | USB-232-2 |
| STANDARDS: | USB 2.0 and 1.1 Standards - EIA/TIA RS-232C Standard |
| BAUD RATES: | From 300 Baud To 460,800 Baud |
| POWER SOURCE: | Port Powered From USB port |
| CURRENT CONSUMPTION: | Less Than 100 mA |
| CONNECTOR TYPES: | USB Side: Type A Female and RS-232 Side: DB9 Male |
| DISTANCE: | USB Side: 10 ft (3m) and RS-232 Side: 16 ft (5m) |
| LED INDICATIONS: | TX and RX |
| WEIGHT: | 2.0oz (58 grams) |
| DIMENSIONS: | RS-232 Housing: 2.33" X 1.42" X 0.58" (59.3 mm X 36.1 mm X 14.7 mm) |
| OPERATING TEMP.: | 14° F to 140° F (-10°C to 60° C) |
| OPERATING HUMIDITY: | 5% To 95% - No Condensation |

TROUBLESHOOTING INSTRUCTIONS:

Perform loop back test on one USB-232-2 converter. Connect the USB female connector of the cable to the USB of a PC. Install the USB / RS-232 Cable Driver on PC per installation instructions provided. Tie signals TX to RX on the male DB9 connector. Using HyperTerminal send a character and see if it echoes back. This will test both transmit and receive function.

TTL-232-5P

RS-232 To 5V TTL Converter – DB9
Datasheet Revision 1.2

INTRODUCTION:

The SerialComm TTL-232-5P is a bi-directional port powered RS-232 to 5V TTL converter in a 9 pin format. It can convert any standard full duplex RS-232C port to a 5V TTL signal and vice versa. The unit is powered from the RS-232 data lines. It also supports data direction auto-turnaround. Therefore, no external power or flow control is required. The data direction auto-turnaround automatically enables the TTL driver when data is present on the RS-232 side making the device plug-and-play, requiring no software drivers. The TTL-232-5P has a DB9 female connector on the RS-232 side and either a DB9 male connector or 5-way terminal block on the TTL side. Separate terminal block is included in package.

CERTIFICATIONS:



GENERAL FEATURES:

- Port Powered: no external power is necessary
- Data Direction, auto-turnaround, no flow control is necessary
- Plug-and-Play (Device is hot-pluggable)
- 5 Year Manufacturer's Warranty
- CE, FCC, ISO 9001 and IAF Compliance Certified
- Built-in surge protection, static protection and circuit protection
- Surface Mount Technology manufactured to ISO 9001 Standards

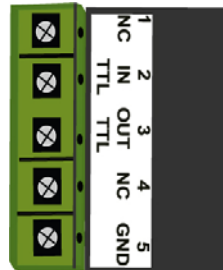
PINOUT CONFIGURATION:

RS-232 SIDE – DB9 FEMALE

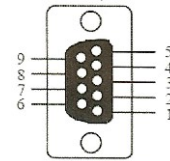
| SIGNAL | DCD | DTR | DSR | RTS | CTS | TX | RX | GND |
|----------|------|-----|------|-----|-----|----|-----|-----|
| PIN # | 1 | 4 | 6 | 7 | 8 | 2 | 3 | 5 |
| FUNCTION | TIED | | TIED | | TX | RX | GND | |

5V TTL SIDE – DB9 MALE OR TERMINAL BLOCK

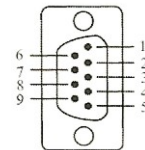
| SIGNAL | NC | TTL IN | TTL OUT | NC | GND |
|----------|----|--------|---------|----|-----|
| PIN # | 1 | 2 | 3 | 4 | 5 |
| FUNCTION | NC | TTL IN | TTL OUT | NC | GND |



FEM. DB9



MALE DB9



SPECIFICATIONS:

| | |
|----------------------|---|
| PART NUMBER: | TTL-232-5P |
| STANDARDS: | EIA/TIA RS-232C Standard |
| BAUD RATES: | From 300 Baud To 115,200 Baud |
| POWER SOURCE: | Port Powered From RS-232 Data Lines |
| CURRENT CONSUMPTION: | Less Than 10 mA |
| CONNECTOR TYPES: | RS-232 Side: DB9 Female and 5V TTL Side: either DB9 Male or 5 Way Terminal Block |
| DISTANCE: | RS-232 Side: 16 ft (5m) and 5V TTL Side: 10 ft (3m) |
| STATIC PROTECTION: | 1500W Static Protection |
| SURGE PROTECTION: | 600W Surge Protection |
| WEIGHT: | With Terminal Block: 1.2oz (36 grams) Without Terminal Block: 0.8oz (24 grams) |
| DIMENSIONS: | With Terminal Block: 3.16" X 1.32" X 0.73" (80.3 mm X 33.4 mm X 18.6 mm) Without Terminal Block: 2.47" X 1.33" X 0.70" (62.8 mm X 33.8 mm X 17.8 mm) |
| OPERATING TEMP.: | -4° F to 140° F (-20°C to 60° C) |
| OPERATING HUMIDITY: | 5% To 95% - No Condensation |

TROUBLESHOOTING INSTRUCTIONS:

Perform a loop back test on one TTL-232-5P converter. Tie signals TTL OUT to TTL IN of the TTL-232-5P. Attach the converter to a serial port on a PC and using HyperTerminal send a character from one and see if it echoes to the other. This will test both TTL input and TTL output functions.

APPLICATIONS:

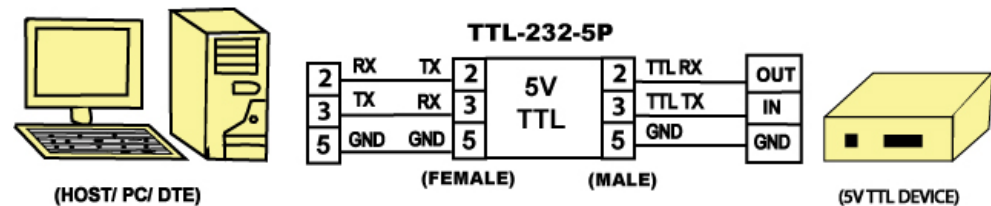


FIGURE 1: CONNECTING THE RS-232 PORT TO A 5V TTL DEVICE