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

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USB-232-2

USB 2.0 To RS-232 Converter – DB9
Datasheet Revision 1.3

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 (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:

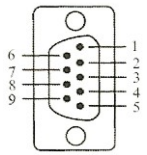
- Adds one RS-232 port to your device using the USB port
- Plug & play (hot-pluggable, data format auto-sensing and self-adjusting)
- USB 1.1 and 2.0 compliant
- Supports 300 baud to 460,800 baud rates
- Supports all RS-232 signals: TX, RX, RTS, CTS, DTR, DSR, RI and GND
- Supports (32 bit) Windows 7 / 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
- 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 and ISO 9001 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-233-2 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.

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TTL-232-5P

RS-232 To 5V TTL Converter – DB9
Datasheet Revision 1.3

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:

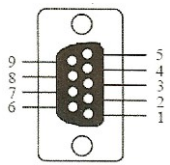
GENERAL FEATURES:

- 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
- RoHS, CE, FCC and ISO 9001 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

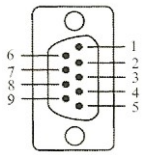
FEM. DB9



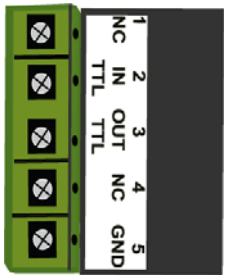
SIGNAL	DCD	DTR	DSR	RTS	CTS	TX	RX	GND
PIN #	1	4	6	7	8	2	3	5
FUNCTION	TIED			TIED		TX	RX	GND

5V TTL SIDE – DB9 MALE OR TERMINAL BLOCK

MALE DB9



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



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:

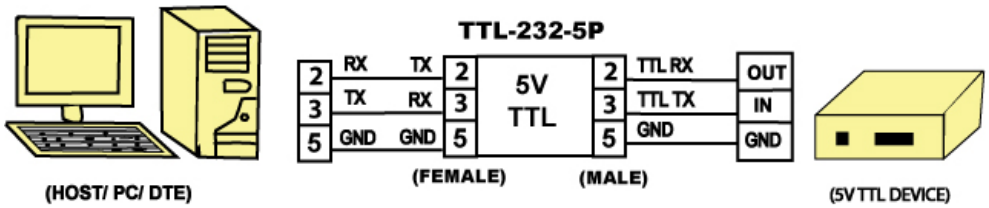


FIGURE 1: CONNECTING THE RS-232 PORT TO A 5V TTL DEVICE