



4D SYSTEMS
TURNING TECHNOLOGY INTO ART

USB to Serial UART Bridge Converter μ USB-MB5

DATASHEET

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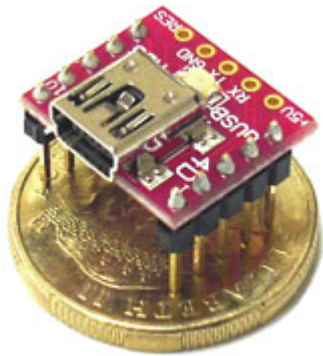
1. Description

The microUSB Bridge (μUSB-MB5) is a USB to RS-232 bridge converter which is simple, cost effective, very small and easy to use.

It uses a mini-B type USB connector to connect to your PC and is based on the CP2102 Bridge from Silicon Labs.

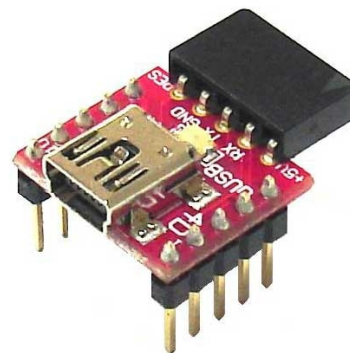
It provides the user with multi baud rate serial data and access to flow control signals in a convenient 10 pin 2.54mm (0.1") pitch Dual-In-Line package.

The μUSB-MB5 is ideal for prototype or production.

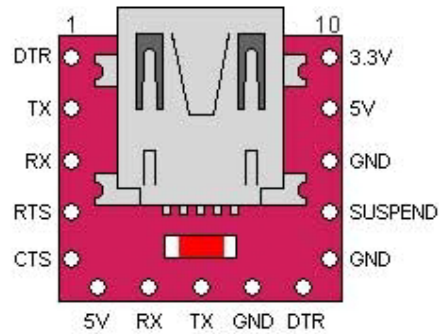


2. Features

- USB 2.0 compliant Full Speed 12Mbps maximum speed, Suspend supported.
- Hardware or Xon/Xoff handshaking supported, 300bps to 1Mbps.
- UART supports 5-8 bit data, 1-2 Stop bits, odd/even and no parity
- Integrated EEPROM for Vendor ID, product ID, serial number, release number
- On-chip 3.3V regulator available
- Power on reset circuit
- Virtual COM port drivers allow operation with existing COM port PC applications
- Supports Windows, MAC (OSX-9 and above) and Linux (2.4 kernel and above)
- Self-powered or USB powered
- -40 to +85 degrees Celsius temp range
- Small size, 15.4mm x 17.7mm
- Traffic/Operation LED indicates board status
- RoHS Compliant



3. Pin Configuration and Summary



microUSB (μUSB-MB5) Pin Outs

Pin	Symbol	Description
1	DTR	Data Terminal Ready Output (active low)
2	TX	Serial Data Output (μUSB Transmit)
3	RX	Serial Data Input (μUSB Receive)
4	RTS	Ready to Send Output (active low)
5	CTS	Clear to Send Input (active low)
6	GND	Ground
7	SUSPEND	USB Suspend State (active high)
8	GND	Ground
9	+5V	5V Power from USB (up to 500mA)
10	+3.3V	3.3V Power regulated (up to 100mA)

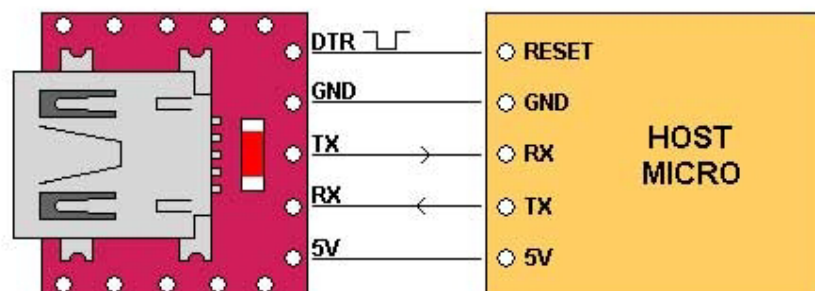
4. Typical Applications

The microUSB (μUSB-MB5) is designed to accommodate many applications. Its small size and convenient form factor are perfect for adding micro USB functionality to embedded applications.

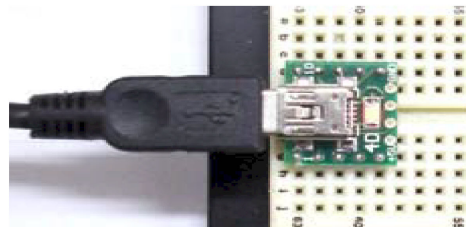
The microUSB makes an easy USB-Serial interface, so you can easily create USB to RS-232 converters, USB to RS-422/RS-485 converters, upgrade legacy RS232 devices, make PDA and cellphone USB interface cables, barcode readers, POS terminals, etc.

In any application, make sure the TX and RX lines from the μUSB are crossed over to the attached peripheral. That is, the TX from the μUSB connects to the RX of the target and the RX from the μUSB connects to the TX of the target device.

Note: the TX and RX signal levels are between 0 Volts and 3.3 Volts.

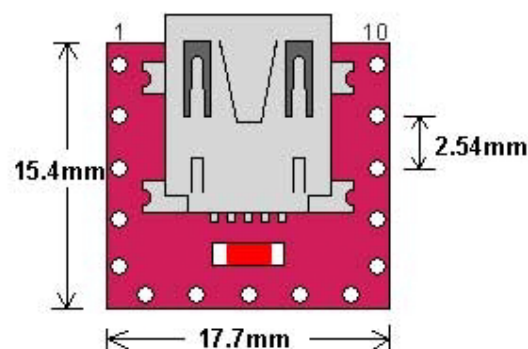


The microUSB is designed to have a compact footprint, and be compatible with prototyping such as plugging it directly into a breadboard.



For assistance with latest driver downloads, go to www.silabs.com (search for CP2102 Bridge) or visit the μUSB-MB5 product page of the 4D Systems website, www.4dsystems.com.au

5. Mechanical Dimensions



6. Ordering Information

ORDERING INFORMATION

Order Code: μUSB-MB5

Package: 90mm x 130mm

Packaging: Bubble wrapped in antistatic bag

7. Legal Notice

Proprietary Information

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8. Contact Information

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