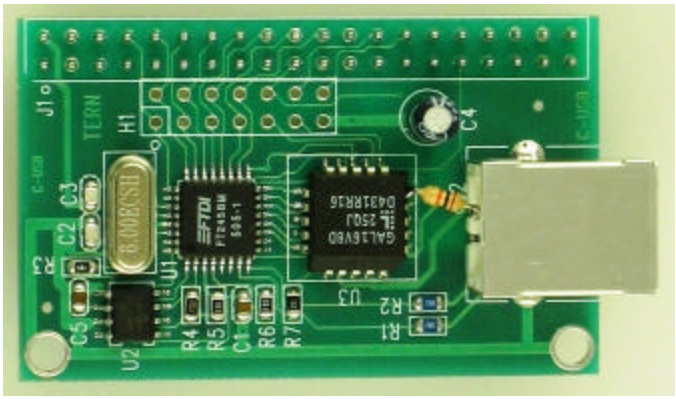
CUSB™ *Connecting TERN controllers to a PC USB port*



Features:

* Connecting TERN controller to a USB port
* 8-bit parallel high speed bus or I/O support
* Ready to use, royalty free USB drivers
* Eliminate Windows driver development
* 2.1x1.3", USB bus powered
* USB 1.1 and USB2.0 compatible
* Tx/Rx buffer FIFO for parallel high speed I/O
* Data transfer rate to 150 KB/sec with VCP driver
* Data transfer rate to 500KB/sec with D2xx driver

Introduction

The ***CUSB™*** is a low cost USB solution for TERN C/C++ programmable controllers.

Many TERN controllers feature high performance peripherals such as high speed (1 MHz) parallel 16-bit ADCs, 300KHz 12-bit ADCs, image sensors, motion control, and 10 MHz counters. Inevitably, some user applications need to transfer data in and out to a PC at very high speed. The traditional RS232 serial transfer data rate can only manage a peak bandwidth of approximately 10K bytes per second (at 115,200 baud). USB interfaces provide a transfer rate that's up to 50 times faster.

The ***CUSB™*** integrates a high-performance USB stack chip to provide an easy to program USB 1.1/2.0 slave interface. The onboard hardware fully handles USB stack processing, and provides for high-speed bi-directional 8-bit parallel communication. The hardware interface includes 384 bytes of FIFO transmit buffer, and 128 bytes of FIFO for the receiving buffer, making this an ideal low-overhead solution for all embedded applications.

The CUSB exposes a slave USB interface, and connects to a PC via USB-B connector. For connection to the TERN controller, the CUSB relies on the J1 expansion header compatible with most TERN controllers.

Programming

No USB specific firmware programming is required on the controller side. The USB interface is seen as a transparent parallel FIFO buffer tasked with transferring data back and forth with the remote host. The only control signals needed are "ready to transmit" and "data received" signals, readily available to your C/C++ application running on the TERN controller.

Royalty-free software drivers are provided for most Windows environments (XP, 2000, NT, 98). These field proven USB software drivers eliminates the requirement for Windows USB driver development. Two types of USB software drivers are available: VCP and D2xx. The VCP (Virtual Com Port) driver supports up to 300 K bytes per second transfer rate, and allowing the device to be accessed transparently on the PC side through traditional COM port software. The D2xx (USB direct driver and DLL) drivers can support up to 1M bytes per second. Additional utilities available from third-party sources allow the USB interface to be programmed with unique service and product ID numbers, allowing the unit to be transparently integrated into OEM applications.

Order Information

CUSB™

$69/$49/$29 for **Qty 1/100/1K+**

Includes: USB interface + USB 'B' connector, default type 'B' J1 header.

Not Including Add-on Options

1) J1 20x2 pin flat cable……$10

2) USB A-B connector cable ……..…….$10

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