Interfacing(USB - RS232 - I2c -ISP) Projects Projects Sensor - Transducer - Detector Projects

TD-USB-01 interface with mouse sensor board using PIC18F2550

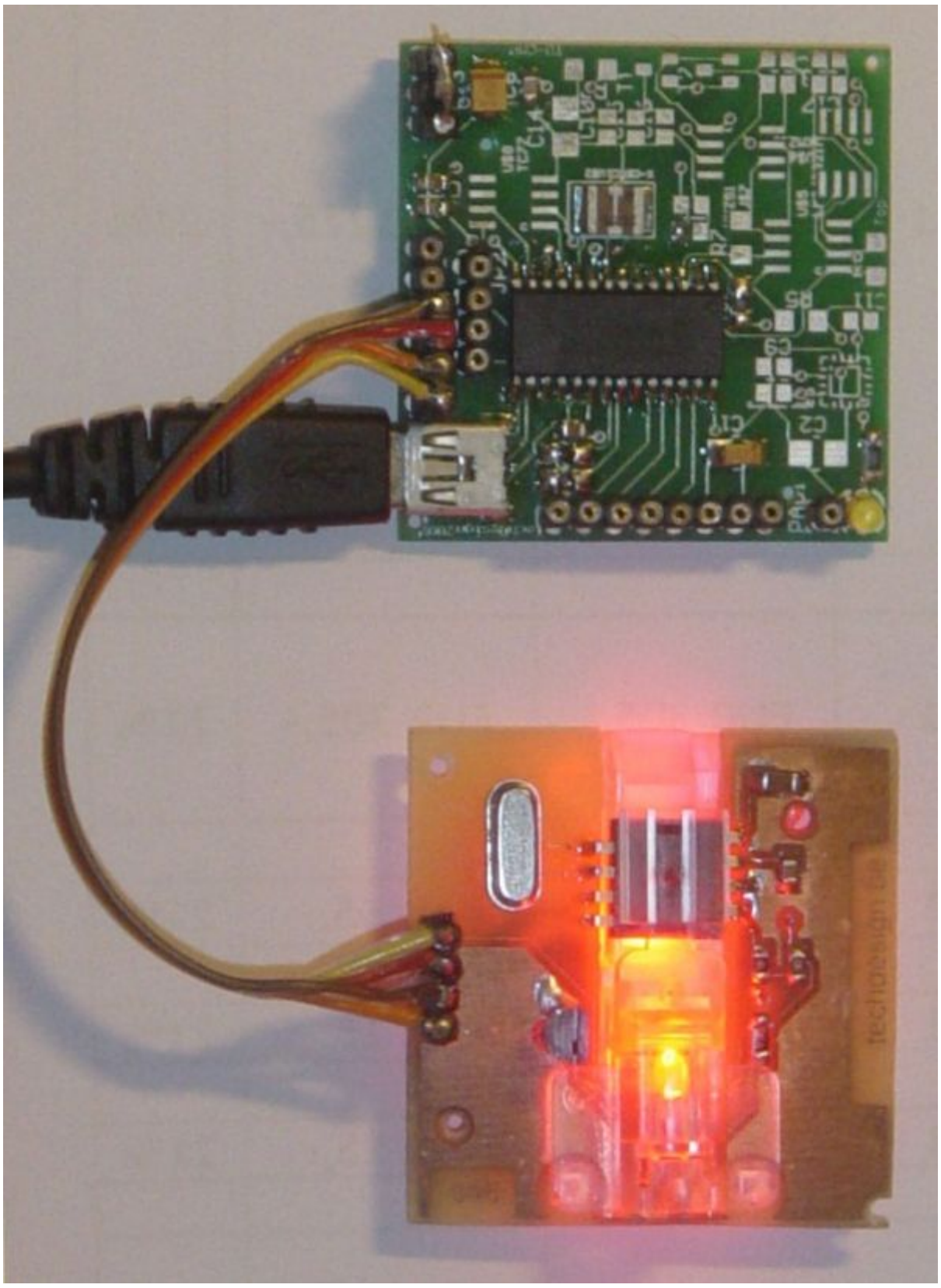
Wise Tech • April 22, 2017

2 15 1 minute read

This is an example USB project showing how to interface an optical mouse sensor (the ADNS-2620) with a standard XP/Vista computer.

The TD-USB-01 board with a PIC18F2550 communicates with:

- the PC: USB 2.0 through a mini-B connector.
- the mouse sensor board: SPI over 4-wire flatcable.



Here are the technical specifications:

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- **PC Win XP/Vista interface** application with Visual C# 2008 Express: free download.
- TD-USB-01 (green pcb on top) with PIC18F2550 USB HID setup.
- Mouse sensor board (046) with ADNS-2620.
- USB Bus powered, no external power supply needed.
- ADNS-2620 registers selection stored in the windows registry.
- Refresh rate from 1mS up.
- Data bits & bytes details.
- Real mouse functionality.
- Sensor CCD 324 pixels: image displayed: 18×18, 6-bit greyscale.
- TD-USB-01 software is **100% upgradable** with a simple RS232 bootloader.
- RS232 interface for raw data readings.
- PCB Dimensions: 40 x 41 mm or 1″57 x 1″61

These assembled boards are available from our online shop.

Source code (CCS C and Visual C#) can be purchased separately.

Sensor example Source code (CCS C) , **sensor board pcb layout** and **schematics** (Eagle) available.

Last update: March 28, 2009.

Sensor Board (046): Eagle PCB layout: 046_v002.brd – Jan. 31, 2009.

Sensor Board (046): Eagle Schematics: 046_v002.sch – Jan. 31, 2009.

ADNS-2620: CCS c source code: optical_mouse_v03.c – March 27, 2009.

TD-USB-01:Hex file: 046_v003.hex bootloading for the PIC18f2550 – March 27, 2009.

Windows interface application setup: 046_app_setup.zip – March 27, 2009. Written in Visual C# 2008 Express, compatible with Windows XP and Vista.

For more detail: TD-USB-01 interface with mouse sensor board using PIC18F2550

> **See also PIC18F2550 8 AXIS JOYSTICK FOR FLIGHT SIMULATOR**

Tags: mouse | pic18f2550 | sensor board

2 Comments

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yaser

June 25, 2016 at 10:18 am

this doe not work
Sensor Board (046): Eagle PCB layout: 046_v002.brd – Jan. 31, 2009.

Sensor Board (046): Eagle Schematics: 046_v002.sch – Jan. 31, 2009.

ADNS-2620: CCS c source code: optical_mouse_v03.c – March 27, 2009.

TD-USB-01:Hex file: 046_v003.hex bootloading for the PIC18f2550 – March 27, 2009.

Reply

yaser

July 4, 2016 at 3:48 am

Hello
ı have question about interface pic with mouse and bluetooth
How can write the code of mouse in the mikroc
movement top ,down ,left and right
also button
if could help me
Yaser
yasermare@yahoo.com

Reply

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