

TUSB3410GPIODK : Getting Started

This document discusses the product development kit (TUSB3410GPIODK), and lists the literature and software intended for use with the enclosed evaluation module (TUSB3410GPIOEVM). The associated files can be found on the included CD or they can be downloaded at www.ti.com/rd/tusb3410gpio. The TUSB3410GPIODK is intended to be used to evaluate the TUSB3410 as a general purpose MCU only. For information regarding using the TUSB3410 as UART-USB converter, please see www.ti.com/rd/tusb3410uart

The TUSB3410GPIO EVM (the printed circuit board in this kit) contains a TUSB3410 device with supporting circuitry that allow for evaluation in general-purpose applications. It has:

- push buttons and LEDs for testing general purpose I/O
- several test points
- an RS232 serial connector (attached to the debugging port of the TUSB3410, not the enhanced UART used in USB/serial bridge applications)

The EVM is equipped with an EEPROM loaded with firmware that supports the Human Interface Device (HID) class of USB devices. It will therefore enumerate on the USB host as a HID device. (Source code for this binary is available at <http://www.ti.com/rd/tusb3410gpio>.) Since all USB hosts have a HID class driver, no special driver is needed for this EVM.

This kit is meant to be used as a bus-powered application, and therefore no power supply is included. The TUSB3410 can also support self-powered operation if desired.

A good review of USB can be found in USB Complete by Jan Axelson (www.lvr.com), or Universal Serial Bus System Architecture by Don Anderson (www.mindshare.com).

Included in this kit:

- TUSB3410GPIOEVM
- USB-IF Certified Cable
- RS232 cable for FW debugging

Other items available at <http://www.ti.com/rd/tusb3410gpio> that assist in development of TUSB3410 general-purpose applications:

1. *Software* –
 - a. Source code for the TUSB3410GPIO firmware
 - b. Header Generator Utility: A DOS-based program that allows the user to generate a header for the EEPROM image file of the application firmware.
2. *Literature* –
 - a. TUSB3410 GPIO EVM User's Guide (SLLU041): This manual includes hardware overview and requirements, schematic, board layout, and description of jumpers and switches.
 - b. TUSB3410 Data Manual (SLLS519) : This document is a product data sheet and includes firmware development notes.
 - c. TUSB2136/3210 Debugging Guide (SLLU027): This document is a general instruction guide on how to debug firmware for TI 8052-based USB controllers, including the TUSB3410.
 - d. An 8052 reference guide will be located at the URL when available. The TUSB3410 has a Mentor Graphics 8052 core. One can go to www.8052.com or other web locations for resources on the 8052.
 - e. Do not forget the read me files embedded in the various ZIP files for download. They contain information that can save you time and effort.

Information regarding the TUSB3410GPIOPDK is subject to change. Please refer to <http://www.ti.com/rd/tusb3410gpio> for most recent information.

Technical Questions

Contact the product information center (PIC) at (972) 644-5580, 8am-6pm U.S. central time, or refer to www.ti.com for contact information in your country.

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