

TUSB3210GENPDK : Getting Started

This document lists the documents and software intended for use with the generic product development kit (TUSB3210GENPDK.) The TUSB3210GENPDK may be used to evaluate the TUSB3210 universal serial bus micro-controller from Texas Instruments. The kit is a generic kit in that it is intended to facilitate development and testing of the TUSB3210 with the user's application. The kit is not intended for use as a stand-alone application.

What goes with the kit ?

1. *Hardware-*
 - a. *TUSB3210GENEVM* – The evaluation module is a printed circuit board with a resident TUSB3210. This module allows ready access to the TUSB3210 via a 50-pin connector header, and connection to a USB-enabled host. The kit is a generic kit in that it is intended for use with the user's application via the connector, and is not intended for use as a stand-alone application.
 - b. *USB-IF Certified Cable*
 - c. *RS232 Serial Cable for FW debugging*
2. *Software/Firmware* – located at <http://www.ti.com/sc/tusb3210genpdk>
 - a. *Application Firmware:* Object code that is suitable for a keyboard is preloaded on the EPROM. Source code for firmware is available with a software licensing agreement. The agreement can be made online at the above URL.
 - b. *Utilities* –
 - i) AppLoader: This utility enables firmware that is stored on the host to download to the TUSB3410 integrated 8052 RAM. This utility does not update the EEPROM. Note that an EEPROM will always be necessary to supply a unique Vendor ID and Product ID for USB certification compliance. Your unique VID and PID cannot be located on the host, since the TUSB3410 will always boot up with a default of TI's VID and PID stored in its bootcode in ROM if there is no EEPROM. Conflicts can occur if more than one device uses the default VID and PID. Please review USB certification compliance on www.usb.org for more information.
 - ii) Header Generator Utility: A DOS-based program that allows the user to generate a header for the EEPROM image file of the application firmware.
3. *Literature* – located at the following URL: <http://www.ti.com/sc/tusb3210genpdk>
 - a. The TUSB3210 Product Development Kit User's Guide (SLLU031): This manual includes hardware overview and requirements, schematic, board layout and description of jumpers and switches.
 - b. The TUSB3210 Data Manual (SLLS466) : This document is a product data sheet
 - c. The TUSB2136/3210 Debugging Guide (SLLU027): This document is a general instruction guide on how to debug your firmware on the TUSB3210.
 - 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.
4. *Not included:*
 - a. Utilities for monitoring USB traffic – any generic such utility will work with our device.
 - b. Drivers: TI does not provide drivers for this PDK. The sample source code provided at the above URL is for use with a USB HID-class driver for keyboards. The HID-class drivers are native to most operating systems and require no additional development. Please see www.usb.org for more information on USB class drivers.
 - c. Compiler - The TUSB3410 is based upon the industry-standard 8052 microcontroller. There are several compilers on the market that would be suitable. Some examples are at www.amrai.com, iar.com, keil.com, and tasking.com.
 - d. USB host.

- e. Cables - 50-pin ribbon cable.
- f. Power source. This kit is meant to be used as a bus-powered application. The TUSB3410 can support self-powered operation. Bus-powered means the device gets its power from the USB cable.
- g. For a good review of USB, one can reference USB Complete by Jan Axelson (www.lvr.com), or Universal Serial Bus System Architecture by Don Anderson (www.mindshare.com).

Information regarding the TUSB3210GENPDK is subject to change. Please refer to <http://www.ti.com/sc/tusb3210genpdk> 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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Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265

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