

**TUSB926x Linux EEPROM Burner: User Guide****Document Revision: 1.02****Date: Nov 12, 2013**

ABSTRACT

This document provides detailed information on how to use the TUSB926x Linux EEPROM Burner software, which is a Linux tool that allows the user write a specific Firmware to TUSB926x devices.

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1 Introduction

The “TUSB926x Linux EEPROM Burner” software was developed to provide a application from a Linux Command Line environment, allowing the user write a specific Firmware to TUSB926x devices.

Required Equipment

The following is required in order to use the Linux TUSB926x Linux EEPROM Burner application:

- PC running Linux, kernel 2.6 or newer.
- “eBurner.ko” module.
- “libhid” library.

Note:

- This application has currently been only tested on Ubuntu and Fedora Linux distribution.

2 Installing the prerequisites.

2.1 Installing “libhid” library.

Extract the libhid-0.2.16.tar.gz package and open the folder libhid-0.2.16. you can download this package from (http://alioth.debian.org/frs/?group_id=30451)

```
$tar -zxvf libhid-0.2.16.tar.gz
$cd libhid-0.2.16
```

Download the following packages using the command line “apt-get install” for Ubuntu-Debian or “yum install” for fedora

libusb-0.1-4 (1:0.1.8-17)

libusb-dev (1:0.1.8-17)

libswig1.3.22 (1.3.22-3)

swig (1.3.22-3)

Intall the Python development package.

python-dev

Lastly, to compile the API documentation, you need doxygen, which is in the

following package:

doxygen (1.2.15-2)

Once these are installed, the package can be configured and compiled.

Configuration happens as follows:

```
$ ./configure [args]
```

where [args] is a space-separated list of the following:

```
--prefix=/usr/local    installs the software under /usr/local
--enable-debug          enables debugging symbols in the library
--enable-maintainer-mode enables automatic regeneration of configure and
                        Makefile scripts
--disable-shared        only creates a library object for static
                        linking, which shortens compile time. generally,
                        this is not necessary.
```

More options are available. Consult the `./configure --help` output.

For most purposes, it suffices to issue the following command:

```
$ ./configure --enable-debug
```

The recommended way to install the software requires you to issue the following command:

```
$ ./configure --enable-debug --prefix=/usr/local/stow/libhid
```

Following the configuration, the package can be build and installed as usual:

```
$ make
$ su      # if needed
# make install
```

3 Installing “eBurner.ko” module.

Extract the TUSB9260_LinuxDriver.tar.gz package and open the the folder TUSB9260_LinuxDriver

```
$tar -xzxvf TUSB9260_LinuxDriver.tar.gz
$cd TUSB9260_LinuxDriver
```

build the “ko” module and insert the module eBurner.ko module

```
$make all
$insmod eBurner.ko
```

Plug the TUSB926x device and you'll be able to see the TUSB9260_x instance at /dev/

4 Installing the TUSB926x Linux EEPROM Burner.

Important Note:

- You must be logged-in as **root** in order to get the permissions required by the “TUSB926x Linux EEPROM Burner” application to work correctly.

“TUSB926x Linux EEPROM Burner” can be installed by simply double clicking on the installer file (tusb926x-flashburner_0.1-1_i386.deb tusb926x-flashburner_0.1-1.i586.rpm). the installer file will download and install all the necessary packages for “TUSB926x Linux EEPROM Burner”. The application will install on /usr/bin/TUSB926x_FlashBurner.

Note:

- Please verify that you have set up the appropriate configuration to download packages before try to install the application.

```
$ cd /usr/bin
$./LinuxTopHAT
```

After calling the “LinuxTopHAT” executable file, the application will start and display a graphical interface like the one shown below in figure 1.

5 Running TUSB926x Linux EEPROM Burner application.

“TUSB926x Linux EEPROM Burner” can be executed by simply calling the provided executable file from your console by typing the following commands.

usage: ./TUSB926x_FlashBurner [-l] [file path] [-f] [file path] Burn Firmware to the EEPROM.

Arguments:

- l Load External Descriptors (DESC file).
- f Select the Firmware File (BIN file/Hex File).
- s Specify a Serial Number.
- i Ignore DielD.

Examples: Using the default descriptors configuration:

\$ TUSB926x Linux EEPROM Burner -f [Firmware file]

Loading customized descriptor configuration from a “desc” file:

\$ TUSB926x Linux EEPROM Burner -f [Firmware file] -l [Descriptors file]

After calling the “TUSB926x Linux EEPROM Burner” executable file, the application will start and display the following menu (figure 1)

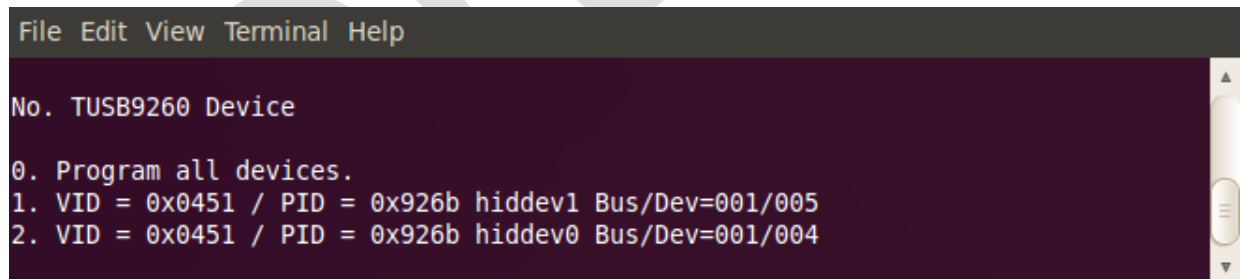


Figure1. TUSB926X Linux EEPROM Burner device menu.

Select the device that you want to program and press “Enter”. You’ll get some messages that advice you the programming process (Fig2).

```
No. TUSB9260 Device

0. Program all devices.
1. VID = 0x0451 / PID = 0x926b hiddev1 Bus/Dev=001/005
2. VID = 0x0451 / PID = 0x926b hiddev0 Bus/Dev=001/004

Please select a device:2

PROGRAMMING.....
device identification of HIDInterface 001/004[0]:
  dev_handle:    0x08b6b048
  device:        0x08b94898
  location:      001/004
  manufacturer:  Texas Instruments
  product:       TUSB9260 Boot Loader
  serial number: TUSB9260BL01

Sending Firmware....

Firmware sent to TUSB926x (001/004) device.

device identification of HIDInterface 001/004[0]:
  dev_handle:    0x08b989c8
  device:        0x08b94898
  location:      001/004
  manufacturer:  Texas Instruments
  product:       TUSB9260 Boot Loader
  serial number: TUSB9260BL01

PROGRAMMING SUCCEEDED!!!!
```

Note: if you only have one TUSB926x device connected the program will automatically select and program this device.