

# *Android or Linux USB HID*

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This manual specifies how to enable Siliconworks' SW3711 under Android or Linux environments through USB HID

## 1. Test Environments

GCC 4.4.1 (Sourcery G++ Lite 2010q1-188)

Linux Version : Kernel 3.0.51

Android Version : 4.1.2 JZO54L eng

## 2. Kernel Configuration

Below should be set to "Enable"

Device Drivers->

[\*] HID Devices ->

<\*> USB Human Interface Device (full HID) support

Special HID drivers --->

<\*> Microsoft non-fully HID-compliant devices

<\*> HID Multitouch panels

[\*] USB support --->

<\*> EHCI HCD (USB 2.0) support

<\*> OHCI HCD support

## 3. Device Driver modification

To add following codes into the "kernel/drivers/hid/hid-core.c" file

```
1288 /* a list of devices for which there is a specialized driver on HID bus */
1289 static const struct hid_device_id hid_have_special_driver[] = {
1290     { HID_USB_DEVICE(USB_VENDOR_ID_SIW, USB_DEVICE_ID_SW3711) }, /* Siliconworks */
1291     { HID_USB_DEVICE(USB_VENDOR_ID_3M, USB_DEVICE_ID_3M1968) },
1292     { HID_USB_DEVICE(USB_VENDOR_ID_3M, USB_DEVICE_ID_3M2256) },
```

To add following codes into the file, "kernel/drivers/hid/hid-ids.h"

```
17
18 #ifndef HID_IDS_H_FILE
19 #define HID_IDS_H_FILE
20
21 /* Siliconworks SW3711 */
22 #define USB_VENDOR_ID_SIW    0x29BD
23 #define USB_DEVICE_ID_SW3711 0x3711
24
25 #define USB_VENDOR_ID_3M    0x0596
```

To add following codes into the file, "kernel/drivers/hid/hid-multitouch.c"

```
597 static const struct hid_device_id mt_devices[] = {  
598     { .driver_data = MT_CLS_DEFAULT,  
599       HID_USB_DEVICE(USB_VENDOR_ID_SIW,  
600         USB_DEVICE_ID_SW3711) },  
601  
602     /* Elitegroup Computer Systems */  
603     { .driver_data = MT_CLS_DEFAULT,  
604       HID_USB_DEVICE(USB_VENDOR_ID_ELITEGROUP,  
605         USB_DEVICE_ID_ELITEGROUP_TOUCH) },
```

4. Please re-apply kernel after compiling then you will see touch operation works fine