

Android USB HID Porting

August 17, 2015

1. Test Enviroment

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

Insert or revise below text of gray box.

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 revision

In "kernel/drivers/hid/hid-core.c", you must insert below code of gray box.

```
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_SW4101) }, /* 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) },
```

In "kernel/drivers/hid/hid-ids.h", you must insert below code of gray box.

```
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_SW4101 0x4101
24
25 #define USB_VENDOR_ID_3M    0x0596
```

In "kernel/drivers/hid/hid-multitouch", you must insert below code of gray box.

```
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_SW4101) },  
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. After compiling and applying, you can confirm touch operation with USB connection