

SANWA SUPPLY SKB-WL23BK

動作確認結果

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|---------|------|
| • キーボード | 動作OK |
| • マウス | — |

型番

- | | |
|------------|--------------|
| • キーボード | SKB-WL23BK |
| • マウス | なし |
| • USBレシーバー | SKB-WL23BK-R |

認識状態

- NYA-USB98KBWM
device0 0603:1605:00
>device type:hid
->interface0:keyboard
->interface1:mouse
- Windows
 - ▼  USB Composite Device
 - ▼  USB 入力デバイス
 -  HID キーボード デバイス
 - ▼  USB 入力デバイス
 -  HID 準拠コンシューマー制御デバイス
 -  HID 準拠システム コントローラー
 -  HID 準拠ペンダー定義デバイス
 -  HID 準拠マウス

USB Descriptor

Global:

////////////////////////////////

Device Descriptor:

0x12 bLength
0x01 bDescriptorType
0x0110bcdUSB

0x00 bDeviceClass
0x00 bDeviceSubClass
0x00 bDeviceProtocol
0x08 bMaxPacketSize0 (8 bytes)
0x0603 idVendor
0x1605 idProduct
0x0222 bcdDevice
0x01 iManufacturer "SINO WEALTH"
0x02 iProduct "USB Composite Device"
0x00 iSerialNumber
0x01 bNumConfigurations

Configuration Descriptor:

0x09 bLength
0x02 bDescriptorType
0x003B wTotalLength (59 bytes)
0x02 bNumInterfaces
0x01 bConfigurationValue
0x00 iConfiguration
0xA0 bmAttributes (Bus-powered Device, Remote-Wakeup)
0x32 bMaxPower (100 mA)

Interface0:

////////////////////////////////////

Interface Descriptor:

0x09 bLength
0x04 bDescriptorType
0x00 bInterfaceNumber
0x00 bAlternateSetting
0x01 bNumEndPoints
0x03 bInterfaceClass (Human Interface Device Class)
0x01 bInterfaceSubClass
0x01 bInterfaceProtocol
0x00 iInterface

HID Descriptor:

0x09 bLength
0x21 bDescriptorType
0x0110bcdHID
0x00 bCountryCode
0x01 bNumDescriptors
0x22 bDescriptorType (Report descriptor)
0x0041 bDescriptorLength

Endpoint Descriptor:

```
-----  
0x07  bLength  
0x05  bDescriptorType  
0x81  bEndpointAddress (IN endpoint 1)  
0x03  bmAttributes (Transfer: Interrupt / Synch: None / Usage: Data)  
0x0008      wMaxPacketSize (1 x 8 bytes)  
0x0A  bInterval (10 frames)
```

HID Report Descriptor:

```
-----  
0x05, 0x01, // Usage Page (Generic Desktop Ctrls)  
0x09, 0x06, // Usage (Keyboard)  
0xA1, 0x01, // Collection (Application)  
0x05, 0x07, // Usage Page (Kbrd/Keypad)  
0x19, 0xE0, // Usage Minimum (0xE0)  
0x29, 0xE7, // Usage Maximum (0xE7)  
0x15, 0x00, // Logical Minimum (0)  
0x25, 0x01, // Logical Maximum (1)  
0x75, 0x01, // Report Size (1)  
0x95, 0x08, // Report Count (8)  
0x81, 0x02, // Input (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null Position)  
0x95, 0x01, // Report Count (1)  
0x75, 0x08, // Report Size (8)  
0x81, 0x01, // Input (Const,Array,Abs,No Wrap,Linear,Preferred State,No Null Position)  
0x95, 0x03, // Report Count (3)  
0x75, 0x01, // Report Size (1)  
0x05, 0x08, // Usage Page (LEDs)  
0x19, 0x01, // Usage Minimum (Num Lock)  
0x29, 0x03, // Usage Maximum (Scroll Lock)  
0x91, 0x02, // Output (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null  
Position,Non-volatile)  
0x95, 0x05, // Report Count (5)  
0x75, 0x01, // Report Size (1)  
0x91, 0x01, // Output (Const,Array,Abs,No Wrap,Linear,Preferred State,No Null  
Position,Non-volatile)  
0x95, 0x06, // Report Count (6)  
0x75, 0x08, // Report Size (8)  
0x15, 0x00, // Logical Minimum (0)  
0x26, 0xFF, 0x00, // Logical Maximum (255)  
0x05, 0x07, // Usage Page (Kbrd/Keypad)  
0x19, 0x00, // Usage Minimum (0x00)  
0x2A, 0xFF, 0x00, // Usage Maximum (0xFF)  
0x81, 0x00, // Input (Data,Array,Abs,No Wrap,Linear,Preferred State,No Null Position)  
0xC0, // End Collection
```

Interface1:

```
////////////////////////////////////
```

Interface Descriptor:

```
-----  
0x09  bLength  
0x04  bDescriptorType  
0x01  bInterfaceNumber  
0x00  bAlternateSetting  
0x01  bNumEndPoints  
0x03  bInterfaceClass   (Human Interface Device Class)  
0x01  bInterfaceSubClass  
0x02  bInterfaceProtocol  
0x00  iInterface
```

HID Descriptor:

```
-----  
0x09  bLength  
0x21  bDescriptorType  
0x0110bcdHID  
0x00  bCountryCode  
0x01  bNumDescriptors  
0x22  bDescriptorType   (Report descriptor)  
0x0092      bDescriptorLength
```

Endpoint Descriptor:

```
-----  
0x07  bLength  
0x05  bDescriptorType  
0x82  bEndpointAddress  (IN endpoint 2)  
0x03  bmAttributes      (Transfer: Interrupt / Synch: None / Usage: Data)  
0x0008      wMaxPacketSize  (1 x 8 bytes)  
0x0A  bInterval         (10 frames)
```

HID Report Descriptor:

```
-----  
0x05, 0x01,    // Usage Page (Generic Desktop Ctrls)  
0x09, 0x02,    // Usage (Mouse)  
0xA1, 0x01,    // Collection (Application)  
0x85, 0x01,    // Report ID (1)  
0x09, 0x01,    // Usage (Pointer)  
0xA1, 0x00,    // Collection (Physical)  
0x05, 0x09,    // Usage Page (Button)  
0x19, 0x01,    // Usage Minimum (0x01)  
0x29, 0x03,    // Usage Maximum (0x03)  
0x15, 0x00,    // Logical Minimum (0)  
0x25, 0x01,    // Logical Maximum (1)  
0x75, 0x01,    // Report Size (1)  
0x95, 0x05,    // Report Count (5)  
0x81, 0x02,    // Input (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null Position)
```

```

0x95, 0x03,    // Report Count (3)
0x81, 0x01,    // Input (Const,Array,Abs,No Wrap,Linear,Preferred State,No Null
Position)
0x05, 0x01,    // Usage Page (Generic Desktop Ctrls)
0x09, 0x30,    // Usage (X)
0x09, 0x31,    // Usage (Y)
0x09, 0x38,    // Usage (Wheel)
0x15, 0x80,    // Logical Minimum (-128)
0x25, 0x7F,    // Logical Maximum (127)
0x75, 0x08,    // Report Size (8)
0x95, 0x03,    // Report Count (3)
0x81, 0x06,    // Input (Data,Var,Rel,No Wrap,Linear,Preferred State,No Null Position)
0x05, 0x0C,    // Usage Page (Consumer)
0x0A, 0x38, 0x02, // Usage (AC Pan)
0x95, 0x01,    // Report Count (1)
0x81, 0x06,    // Input (Data,Var,Rel,No Wrap,Linear,Preferred State,No Null Position)
0xC0,          // End Collection
0xC0,          // End Collection
0x06, 0x01, 0x00, // Usage Page (Generic Desktop Ctrls)
0x09, 0x80,    // Usage (Sys Control)
0xA1, 0x01,    // Collection (Application)
0x85, 0x02,    // Report ID (2)
0x25, 0x01,    // Logical Maximum (1)
0x15, 0x00,    // Logical Minimum (0)
0x75, 0x01,    // Report Size (1)
0x0A, 0x81, 0x00, // Usage (Sys Power Down)
0x0A, 0x82, 0x00, // Usage (Sys Sleep)
0x0A, 0x83, 0x00, // Usage (Sys Wake Up)
0x95, 0x03,    // Report Count (3)
0x81, 0x06,    // Input (Data,Var,Rel,No Wrap,Linear,Preferred State,No Null Position)
0x95, 0x05,    // Report Count (5)
0x81, 0x01,    // Input (Const,Array,Abs,No Wrap,Linear,Preferred State,No Null Position)
0xC0,          // End Collection
0x05, 0x0C,    // Usage Page (Consumer)
0x09, 0x01,    // Usage (Consumer Control)
0xA1, 0x01,    // Collection (Application)
0x85, 0x03,    // Report ID (3)
0x75, 0x10,    // Report Size (16)
0x95, 0x01,    // Report Count (1)
0x16, 0x00, 0x00, // Logical Minimum (0)
0x26, 0x9C, 0x02, // Logical Maximum (668)
0x1A, 0x00, 0x00, // Usage Minimum (Unassigned)
0x2A, 0x9C, 0x02, // Usage Maximum (AC Distribute Vertically)
0x81, 0x00,    // Input (Data,Array,Abs,No Wrap,Linear,Preferred State,No Null Position)
0xC0,          // End Collection
0x06, 0x00, 0xFF, // Usage Page (Vendor Defined 0xFF00)
0x09, 0x01,    // Usage (0x01)
0xA1, 0x01,    // Collection (Application)

```

```
0x85, 0x05,    // Report ID (5)
0x15, 0x00,    // Logical Minimum (0)
0x26, 0xFF, 0x00, // Logical Maximum (255)
0x19, 0x01,    // Usage Minimum (0x01)
0x29, 0x02,    // Usage Maximum (0x02)
0x75, 0x08,    // Report Size (8)
0x95, 0x05,    // Report Count (5)
0xB1, 0x02,    // Feature (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null
Position,Non-volatile)
0xC0,          // End Collection
```