

ELECOM LBT-UAN05C2 (HID Proxy モード)

動作確認結果

- キーボード 動作OK
AKEEYO EC84(S)とのペアリングにて
ただしEC84(S)のマウスモードは動作せず
- マウス 未確認

認識状態

- NYA-USB98KBWM
-device0 0a12:100b:00
->device type:hid
-->interface0:keyboard
-->interface1:mouse
- Windows


The image shows a Windows Device Manager tree for USB devices. It starts with 'USB Composite Device' expanded, showing 'USB 入力デバイス' (USB Input Devices) expanded. Under this, there are four items: 'HID キーボードデバイス' (HID Keyboard Device), 'HID 準拠コンシューマー制御デバイス' (HID Compliant Consumer Control Device), 'HID 準拠ベンダー定義デバイス' (HID Compliant Vendor Defined Device), and another 'USB 入力デバイス' (USB Input Devices) expanded to show 'HID 準拠マウス' (HID Compliant Mouse).

USB Descriptor

Global:

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Device Descriptor:

0x12 bLength
0x01 bDescriptorType
0x0200 bcdUSB
0x00 bDeviceClass
0x00 bDeviceSubClass
0x00 bDeviceProtocol
0x40 bMaxPacketSize0 (64 bytes)

0x0A12 idVendor
0x100B idProduct
0x8891 bcdDevice
0x00 iManufacturer
0x02 iProduct "CSR8510 A10"
0x00 iSerialNumber
0x01 bNumConfigurations

Configuration Descriptor:

0x09 bLength
0x02 bDescriptorType
0x003B wTotalLength (59 bytes)
0x02 bNumInterfaces
0x01 bConfigurationValue
0x00 iConfiguration
0xE0 bmAttributes (Self-powered Device, Remote-Wakeup)
0x32 bMaxPower (100 mA)

Interface0:

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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
0x0111 bcdHID
0x00 bCountryCode
0x01 bNumDescriptors
0x22 bDescriptorType (Report descriptor)
0x007B 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)
0x02 bInterval (2 frames)

HID Report Descriptor:

0x05, 0x01, // Usage Page (Generic Desktop Ctrls)
0x09, 0x06, // Usage (Keyboard)
0xA1, 0x01, // Collection (Application)
0x85, 0x01, // Report ID (1)
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, 0x03, // Input (Const,Var,Abs,No Wrap,Linear,Preferred State,No Null Position)
0x95, 0x05, // Report Count (5)
0x75, 0x01, // Report Size (1)
0x05, 0x08, // Usage Page (LEDs)
0x19, 0x01, // Usage Minimum (Num Lock)
0x29, 0x05, // Usage Maximum (Kana)
0x91, 0x02, // Output (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null
Position,Non-volatile)
0x95, 0x01, // Report Count (1)
0x75, 0x03, // Report Size (3)
0x91, 0x03, // Output (Const,Var,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)
0x25, 0x65, // Logical Maximum (101)
0x05, 0x07, // Usage Page (Kbrd/Keypad)
0x19, 0x00, // Usage Minimum (0x00)
0x29, 0x65, // Usage Maximum (0x65)
0x81, 0x00, // Input (Data,Array,Abs,No Wrap,Linear,Preferred State,No Null Position)
0x06, 0x00, 0xFF, // Usage Page (Vendor Defined 0xFF00)
0x09, 0x01, // Usage (0x01)
0x95, 0x08, // Report Count (8)
0x75, 0x08, // Report Size (8)
0xB1, 0x02, // Feature (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null
Position,Non-volatile)
0xC0, // End Collection

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0x06, 0x00, 0xFF, // Usage Page (Vendor Defined 0xFF00)
0x09, 0x02,      // Usage (0x02)
0xA1, 0x01,      // Collection (Application)
0x85, 0x02,      // Report ID (2)
0x75, 0x08,      // Report Size (8)
0x95, 0x01,      // Report Count (1)
0x15, 0x01,      // Logical Minimum (1)
0x25, 0x64,      // Logical Maximum (100)
0x09, 0x20,      // Usage (0x20)
0x81, 0x00,      // Input (Data,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)
0x15, 0x01,      // Logical Minimum (1)
0x26, 0xFF, 0x02, // Logical Maximum (767)
0x19, 0x01,      // Usage Minimum (Consumer Control)
0x2A, 0xFF, 0x02, // Usage Maximum (0x02FF)
0x81, 0x60,      // Input (Data,Array,Abs,No Wrap,Linear,No Preferred State,Null State)
0xC0,           // End Collection

```

Interface1:

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Interface Descriptor:

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-----
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
0x0111 bcdHID
0x00  bCountryCode
0x01  bNumDescriptors
0x22  bDescriptorType   (Report descriptor)
0x005D      bDescriptorLength

```

Endpoint Descriptor:

```
-----  
0x07  bLength  
0x05  bDescriptorType  
0x85  bEndpointAddress (IN endpoint 5)  
0x03  bmAttributes (Transfer: Interrupt / Synch: None / Usage: Data)  
0x0008  wMaxPacketSize (1 x 8 bytes)  
0x02  bInterval (2 frames)
```

HID Report Descriptor:

```
-----  
0x05, 0x01, // Usage Page (Generic Desktop Ctrls)  
0x09, 0x02, // Usage (Mouse)  
0xA1, 0x01, // Collection (Application)  
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)  
0x95, 0x03, // Report Count (3)  
0x75, 0x01, // Report Size (1)  
0x81, 0x02, // Input (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null Position)  
0x95, 0x01, // Report Count (1)  
0x75, 0x05, // Report Size (5)  
0x81, 0x03, // Input (Const,Var,Abs,No Wrap,Linear,Preferred State,No Null Position)  
0x05, 0x01, // Usage Page (Generic Desktop Ctrls)  
0x09, 0x30, // Usage (X)  
0x09, 0x31, // Usage (Y)  
0x16, 0x00, 0xF8, // Logical Minimum (-2048)  
0x26, 0xFF, 0x07, // Logical Maximum (2047)  
0x75, 0x10, // Report Size (16)  
0x95, 0x02, // Report Count (2)  
0x81, 0x06, // Input (Data,Var,Rel,No Wrap,Linear,Preferred State,No Null Position)  
0x09, 0x38, // Usage (Wheel)  
0x15, 0x80, // Logical Minimum (-128)  
0x25, 0x7F, // Logical Maximum (127)  
0x75, 0x08, // Report Size (8)  
0x95, 0x01, // Report Count (1)  
0x81, 0x06, // Input (Data,Var,Rel,No Wrap,Linear,Preferred State,No Null Position)  
0x09, 0x01, // Usage (Pointer)  
0x15, 0x00, // Logical Minimum (0)  
0x25, 0x03, // Logical Maximum (3)  
0x95, 0x01, // Report Count (1)  
0x75, 0x02, // Report Size (2)
```

```
0xB1, 0x02,    // Feature (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null
Position,Non-volatile)
0x95, 0x01,    // Report Count (1)
0x75, 0x06,    // Report Size (6)
0xB1, 0x03,    // Feature (Const,Var,Abs,No Wrap,Linear,Preferred State,No Null
Position,Non-volatile)
0xC0,          // End Collection
0x06, 0x00, 0xFF, // Usage Page (Vendor Defined 0xFF00)
0x09, 0x01,    // Usage (0x01)
0x95, 0x08,    // Report Count (8)
0x75, 0x08,    // Report Size (8)
0xB1, 0x02,    // Feature (Data,Var,Abs,No Wrap,Linear,Preferred State,No Null
Position,Non-volatile)
0xC0,          // End Collection
```