

NAME

ubtbcmfw - Firmware driver for Broadcom BCM2033 chip based Bluetooth USB devices

SYNOPSIS

To compile this driver into the kernel, place the following line in your kernel configuration file:

```
device ubtbcmfw
```

Alternatively, to load the driver as a module at boot time, place the following line in loader.conf(5):

```
ubtbcmfw_load="YES"
```

DESCRIPTION

The **ubtbcmfw** is a firmware driver for Broadcom BCM2033 chip based Bluetooth USB devices. It provides minimal access to the parts of the device required to download firmware.

The **ubtbcmfw** driver creates three fixed endpoint device nodes.

The control transfers can only happen on the control endpoint which is always endpoint 0. Control requests are issued by `ioctl(2)` calls.

Only incoming transfers are supported on an interrupt endpoint. To perform I/O on an interrupt endpoint, `read(2)` should be used. All I/O operations on an interrupt endpoint are unbuffered. Interrupt endpoint is always endpoint 1.

Only outgoing bulk transfers are supported on a bulk endpoint. To perform I/O on a bulk endpoint, `write(2)` should be used. All I/O operations on a bulk endpoint are unbuffered. Outgoing bulk endpoint is always endpoint 2.

The control endpoint (endpoint 0) handles the following `ioctl(2)` calls:

`USB_GET_DEVICE_DESC` (*usb_device_descriptor_t*)

Return the device descriptor.

FILES

`/dev/ubtbcmfwN.EE`

Endpoint *EE* of device *N*.

SEE ALSO

`ng_ubt(4)`, `ugen(4)`, `usb(4)`, `bcmfw(8)`

HISTORY

The **ubtbcmfw** driver was implemented in FreeBSD 5.0.

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BUGS

Most likely. Please report if found.