NAME

    atopcase - Apple HID-over-SPI transport driver

SYNOPSIS

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

        device atopcase
        device intelspi
        device spibus
        device hidbus
        device hkbd

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

        atopcase_load="YES"
        hkbd_load="YES"

DESCRIPTION

    The **atopcase** driver provides support for Human Interface Devices (HID) on Serial Peripheral Interface (SPI) buses on Apple Intel Macs.

HARDWARE

    The **atopcase** driver supports the following MacBooks produced in 2015-2018 years:

- Macbook8,1
- Macbook9,1
- Macbook10,1
- MacbookPro11,4
- MacbookPro12,1
- MacbookPro13,1
- MacbookPro13,2
- MacbookPro13,3
- MacbookPro14,1
- MacbookPro14,2
- MacbookPro14,3

SYSCTL VARIABLES

    The following variables are available as both sysctl(8) variables and loader(8) tunables:

    hw.hid.atopcase.debug

Debug output level, where 0 is debugging disabled and larger values increase debug message verbosity. Default is 0.

FILES

/dev/backlight/atopcase0 Keyboard backlight(8) device node.

SEE ALSO

acpi(4), backlight(8), loader(8), loader.conf(5).

HISTORY

The **atopcase** driver first appeared in FreeBSD 14.0.

AUTHORS

The **atopcase** driver was originally written by Val Packett *<val@packett.cool>* and marginally improved upon by Vladimir Kondratyev *<wulf@FreeBSD.org>*.

This manual page was written by Vladimir Kondratyev *<wulf@FreeBSD.org>*.

BUGS

Device interrupts are not acknowledged on some hardware that results in interrupt storm. Installation of Darwin OSI in acpi(4) driver fixes the issue. To install Darwin OSI add following lines to loader.conf(5):

hw.acpi.install_interface="Darwin"

hw.acpi.remove_interface="Windows 2009, Windows 2012"