## NAME

**atse** - driver for the Altera Triple-Speed Ethernet MegaCore

## SYNOPSIS

**device atse**
**options ATSE_CFI_HACK**

In */boot/device.hints*:
**hint.atse.0.at="nexus0"**
**hint.atse.0.maddr=0x7f007000**
**hint.atse.0.msize=0x540**
**hint.atse.0.rc_irq=1**
**hint.atse.0.rx_maddr=0x7f007500**
**hint.atse.0.rx_msize=0x8**
**hint.atse.0.rxc_maddr=0x7f007520**
**hint.atse.0.rxc_msize=0x20**
**hint.atse.0.tx_irq=2**
**hint.atse.0.tx_maddr=0x7f007400**
**hint.atse.0.tx_msize=0x8**
**hint.atse.0.txc_maddr=0x7f007420**
**hint.atse.0.txc_msize=0x20**
**hint.e1000phy.0.at="miibus0"**
**hint.e1000phy.0.phyno=0**

## DESCRIPTION

The **atse** device driver provides support for the Altera Triple-Speed Ethernet MegaCore.

## HARDWARE

The current version of the **atse** driver supports the Ethernet MegaCore as described in version 11.1 of Altera's documentation when the device is configured with internal FIFOs.

## MAC SELECTION

The default MAC address for each **atse** interface is derived from a value stored in cfi(4) flash. The value is managed by the atsectl(8) utility.

Only a single MAC address may be stored in flash. If the address begins with the Altera prefix 00:07:ed and ends in 00 then up to 16 addresses will be derived from it by adding the unit number of the interface to the stored address. For other prefixes, the address will be assigned to atse0 and random addresses will be used for other interfaces. If the stored address is invalid, for example all zero's, multicast, or the default address shipped on all DE4 boards (00:07:ed:ff:ed:15) then a random address is generated when

the device is attached.

**SEE ALSO**

miibus(4), netintro(4), ifconfig(8)

*Triple-Speed Ethernet MegaCore Function User Guide*, *Altera Corporation*, November 2011.

**HISTORY**

The **atse** device driver first appeared in FreeBSD 10.0.

**AUTHORS**

The **atse** device driver and this manual page were developed by SRI International and the University of Cambridge Computer Laboratory under DARPA/AFRL contract (FA8750-10-C-0237) ("CTSRD"), as part of the DARPA CRASH research programme.  This device driver was written by Bjoern A. Zeeb.

**BUGS**

The **atse** driver only supports a single configuration of the MegaCore as installed on the Terasic Technologies Altera DE4 Development and Education Board.

Only gigabit Ethernet speeds are currently supported.