

TriFire™

Industry-standard IEEE-1394 physical interface IC

Product Highlights

Features

- Conforms to IEEE 1394 published standards
- 3 fully independent ports
- 100, 200 and 400 Mbit operation
- 400 MHz internal PLL, with external 25MHz xtal
- Asynchronous and Isochronous packet signaling
- Self-ID packet generation
- Link interface over 2, 4 or 8 data lines
- Single 3.3V power supply
- Sleep mode
- 64 pin TQFP package.
- Drop in for TSB21LV03A and SONY's CDX1944R



OPTi's TriFire™ 82C842 Physical Layer chip incorporates three fully independent IEEE 1394

ports running at speeds of 100, 200 and 400 Mbits per second, offering a cost-effective solution for 1394 designs.

Each port is capable of handling asynchronous and isochronous packets, making it suitable for all kinds of applications from low speed cameras to high speed storage devices and printers.

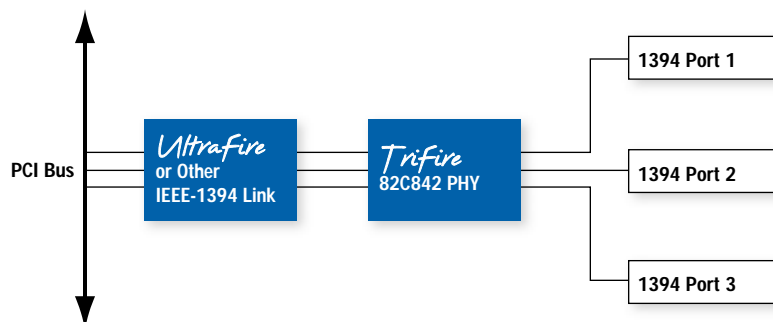
Due to its high integration, TriFire needs only a few discrete components to interface to the IEEE 1394 port connectors and any IEEE 1394 compliant link layer device. An external 24.576 MHz crystal is used as a reference time base for the on-chip 400 MHz PLL that generates all internal clocks as well as the output clock used in the phy-link interface. The built-in, port independent bias voltage generation and detection circuit can detect and report cable insertion and removal in accordance with IEEE 1394-1955 standard.

The 82C842 is fabricated using 0.35µ CMOS technology at the most advanced foundries and package in a 64 pin Low Profile Quad Flat pack. It is ideal for use in designs requiring small footprints and low power consumption.



TriFire

TriFire System Diagram



About OPTi

OPTi's focus is on building innovative ASIC solutions for the technology of today and for the future. Our chipset solutions for the PC and consumer electronics markets include mobile, docking, USB, LCD control, and our embedded chipset program.



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