

# VIA Fire II

## IEEE 1394 Single Chip Solution

The VIA Fire II is a complete IEEE1394 single chip solution for high-speed seamless plug and play connection to the latest IEEE 1394 enabled PC peripherals and consumer devices.



The IEEE 1394 high-speed serial bus is quickly becoming the standard for providing enhanced PC connectivity to a wide range of peripherals and devices. In addition to acting as a powerful connection to storage peripherals, other PCs, and portable devices, IEEE 1394 especially has been adopted by the consumer electronics industry and is expected to provide a volume, plug and play-compatible expansion interface for the PC.

The VIA Fire II is a single chip, complete IEEE 1394 chipset solution providing a high-speed seamless plug and play connection to the latest IEEE 1394 enabled PC peripherals and consumer devices such as HDDs, printers, stereos and video cameras. With the integration of the Link Layer Controller and Physical Layer (PHY), OEMs and motherboard manufacturers looking to add IEEE 1394 capabilities to their product lineup find it both more cost-efficient and simpler to design the single chip IEEE1394 solution onto a PCI adapter card or directly onto a motherboard.

The VIA Fire provides direct connectivity between the PCI and 1394 serial buses. With three ports, the VIA Fire II is designed to provide scalability and manageability in IEEE 1394 network solutions for home networking and multiple PC access to a single internet connection. Each individual port detects connected device types and automatically configures data speeds to either 100, 200 or 400 Mbps, speeds well suited to multi-streaming I/O requirements. A programmable PCI power management mode (specification 1.1) shuts down power to unconnected ports while the sleep function maximizes power efficiency of connected ports. VIA Fire II's feature set also is an ideal for implementation into IEEE 1394 repeater hubs.

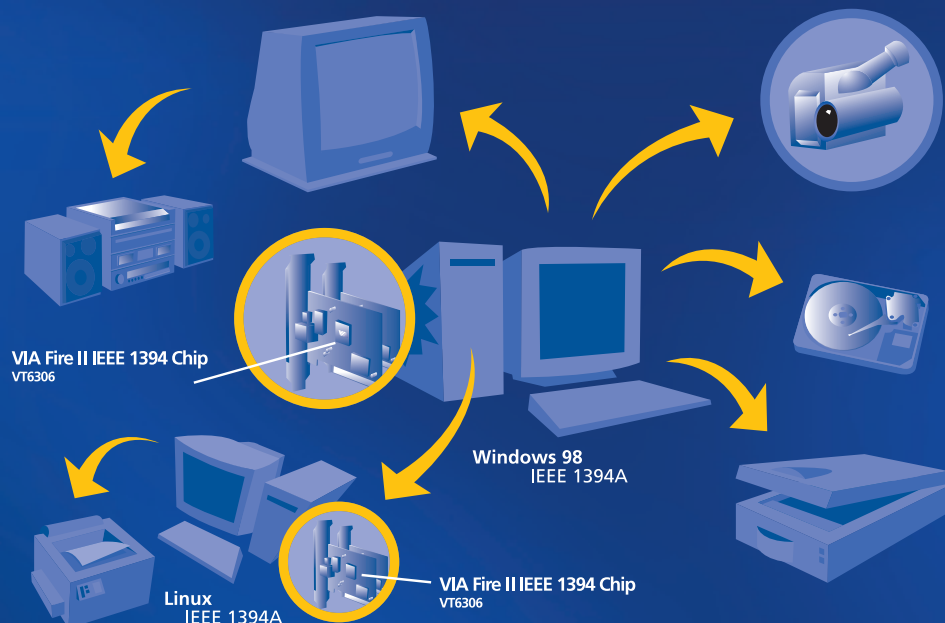
Full VIA and OHCI software driver support for the VIA Fire II has been built into Windows® 98 SE and Windows® 2000.



VIA IEEE 1394 CHIPSET

# VIA Fire II

## 1394 PRODUCT APPLICATIONS



## BENEFITS OF 1394

### • Simplicity

Provides a simple low cost interconnect system for multimedia applications such as video cameras, VCRs, stereos and PC peripherals.

### • Flexibility

High bandwidth capability allows devices of varying speeds to operate on the same network.

### • Compatibility

Universal plug-and-play capability allows devices to be attached or removed from the system, even with the power on. No device driver installation necessary as full software driver support is included in Windows® 98 SE and Windows® 2000.

### • Economical

1394 does not utilize precious host processor bandwidth as peripherals communicate directly with each other without burdening the host processor.

## FEATURES

### VIA Fire II VT6306

- IEEE 1394-1394A compliant
- OHCI compatible programming interface
- Descriptor based isochronous and asynchronous DMA channels for receive and transmit packets
- 100/200/400 Mbps data transfer rates
- PCI 2.1 interface
- 3.3V power supply with 5V tolerant inputs
- Three cable ports
- Automatic configuration to single-port, two-port and three-port applications

- Onboard logic performs bus initialization and arbitration functions
- Incoming data resynchronized to local clock
- CardBus Interface Support
- Advanced power management
  - Programmable power save mode on unconnected ports
  - Sleep mode maximizes connected components power efficiency
- Easily configured as a repeater
- Integrated loop filter
- Single 3.3V power supply
- 128-pin PQFP

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