VIA Fire

IEEE 1394 Link-layer / PHY chipset solution

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

The VIA Fire is a two chip IEEE1394 solution consisting of the VT6305 Link Layer Controller and VT6304 PHY. Implemented onto a PCI adapter card or mounted directly onto a motherboard the VIA Fire is the perfect solution for OEMs and motherboard manufacturers looking to add IEEE 1394 capabilities to their product lineup. A VIA Fire enabled PC enables a seamless high-speed plug-and-play connection to the latest IEEE 1394 enables PC peripherals and consumer devices such as HDDs, printers, stereos and video cameras.

VT6305 Link Layer Controller

The VT6305 is a high performance IEEE 1394A Link Layer Controller providing direct connectivity between the PCI bus and 1394 serial bus. The VT6305's 2/4/8 bit physical layer interface supports data rates of 100 Mbps, 200 Mbps and 400 Mbps operating at speeds up to 50MHz. Full software driver support has been built into Windows 98 SE and Windows 2000.
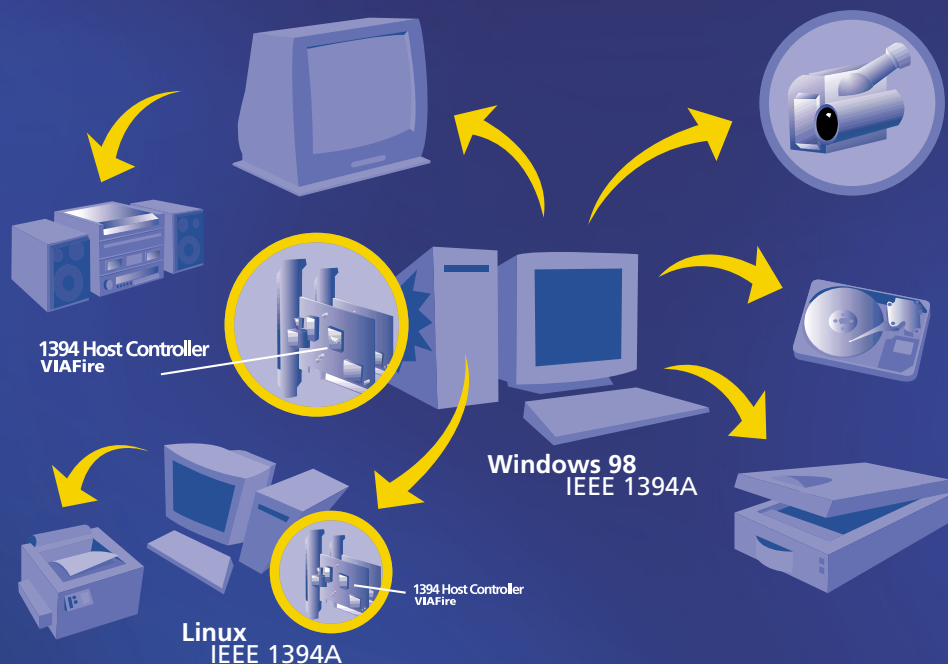
VT6304 Physical Layer (PHY)

The VT6304 is a four port fully IEEE 1394-1995 and 1394A compliant Physical Layer (PHY) chip designed to provide scalability and manageability in your IEEE 1394 network solutions. Each individual port detects connected device type and automatically configures data speeds to either 100, 200 or 400 Mbps. A programmable power management mode shuts down power to unconnected ports while the sleep function maximizes power efficiency of connected ports. The VT6304's feature set also makes it ideal for implementation into IEEE 1394 repeater hubs.

VIA Fire

1394 PRODUCT APPLICATIONS

1394 Host Controller
VIAFire

Windows 98
IEEE 1394A

Linux
IEEE 1394A

1394 Host Controller
VIAFire

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

VT6305 Link Layer Controller

- Fully 1394-1394A compatible
- OHCI compatible programming interface
- Descriptor based isochronous and asynchronous DMA channels for receive and transmit packets
- 2/4/8 bit data interface to external discrete PHY
- 100/200/400 Mbps data transfer rates
- PCI 2.1 interface
- 3.3V power supply with 5V tolerant inputs
- 128-pin PQFP package

VT6304 Physical Layer (PHY)

- Four cable ports
- Automatic configuration to single-port, two-port, three-port and four port applications
- Fully IEEE 1394-1995 and 1394A compliant
- 100/200/400 Mbps data transfer rates
- 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
- 100-pin PQFP package and 80-pin LQFP package available

www.viatech.com