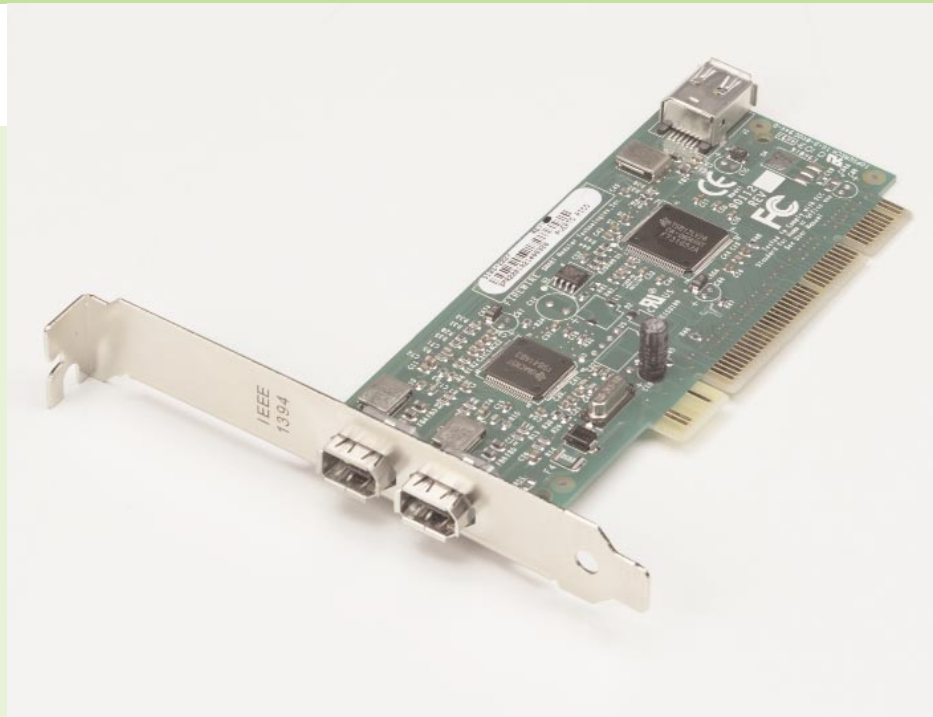# 90112 IEEE 1394

PCI CARD

FEATURES

The SMART 1394 PCI card supports the following features:

- Uses the TI TSB12LV26 1394 interface controller

- 3 available 6-pin 1394 ports

- 3.3-V PCI bus signaling

- 3.3-V supply (core voltage is internally regulated to 1.8 V)

- Serial bus data rates of 100M bits/s, 200M bits/s, and 400M bits/s

- Physical write posting of up to three outstanding transactions

- PCI burst transfers and deep FIFOs to tolerate large host latency

- Windows Hardware Quality Labs (WHQL certified)

- Windows® 98, 98SE, 2000, ME, XP compatible

High-Speed Serial Device

The SMART 90112 IEEE1394 high speed serial device is a PCI-to-1394 interface card compliant with the PCI Local Bus Specification, PCI Bus Power Management Interface Specification, IEEE Std 1394-1995, and 1394 Open Host Controller Interface Specification. The controller used, the TI TSB12LV26 controller, provides the IEEE 1394 link function and is compatible with 100M bits/s, 200M bits/s, and 400M bits/s serial bus data rates.

As required by the 1394 Open Host Controller Interface Specification (OHCI) and IEEE Std 1394a-2000, internal control registers are memory-mapped and nonprefetchable. The PCI configuration header is accessed through configuration cycles specified by PCI and provides plug-and-play (PnP) compatibility. Furthermore, the SMART 1394 card is compliant with the PCI Bus Power Management Interface Specification, per the PC 99 Design Guide requirements. The SMART 1394 card supports the D0, D2, and D3 power states.

The design provides PCI bus master bursting and is capable of transferring a cacheline of data at 132M bytes/s after connection to the memory controller. Since PCI latency can be large, deep FIFOs are provided to buffer 1394 data.

The TSB12LV26 device provides physical write posting buffers and a highly-tuned physical data path for SBP-2 performance. The TSB12LV26 device also provides multiple isochronous contexts, multiple cacheline burst transfers, advanced internal arbitration, and bus-holding buffers on the PHY/link interface.

An advanced CMOS process achieves low power consumption and allows the SMART 1394 card to operate at PCI clock rates up to 33 MHz.

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SPECIFICATIONS

The IEEE 1394 interface, dubbed 'Fire wire' by the computer industry, offers up to 400mbps data transfer speeds for peripherals that demand high speed data throughput. Peripherals currently available using the 1394 port include:

- Digital Video (DV) Cameras
- Digital Film Reader
- Video Walkman
- CD Writer/Reader
- Hard Disk Drives
- Digital Audio Tape Drives

- Zip Drives
- Printers
- DVD/CD Changers
- High Resolution Scanners
- Video Mixers

The IEEE 1394 devices support "hot plugging," eliminating the need to power down or restart the computer when attaching a new peripheral. For additional ease of use, they also feature automatic configuration, no device IDs or terminators, and simple-to-use cables. A single 1394 interface card can support 63 devices concurrently. Also, the 1394 card can supply power directly to attached peripherals.

Regulatory and Environmental

System Environment:
Desktop PC Systems

Bus Type:
32-bit PCI Interface (PCI 2.1 compliant)

External Connectors:
3 IEEE1394 FireWire Ports

Data Transfer Rates:
Up to 50Mbytes/sec (400Mbits/sec)

Physical Size:
Height 2.175" x Length 5.00"

Environmental Temperatures:
Temperature:
- Operating: 0C to +45C
- Storage: -25C to +60C

Operating Humidity:
- 10% to 90% (non-condensing)

Operating Voltage:
+3.3V DC +/-5%

System Requirements:
IBM compatible PC, 266MHz Processor Microsoft®
Windows 98, Windows 98SE, Windows 2000,
Windows ME, Windows XP
Operating Systems, Available PCI slot

Regulatory Approvals:
FCC Part 15/ICES-003 Class B
UL 1950 3rd Edition
EN55022 Class B
EN55024
EN60950
IEC 60950

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Part Number:

Domestic/International - ST1394IOWW340 (40 pack card only)

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