

P14 - PC-MIP IEEE 1394 OHCI FireWire Controller



- **1-channel OHCI PHY/Link Layer Controller**
- **TI TSB43AA22 integrated 1394a-2000**
- **Up to 400Mbps/s**
- **JFW connector**

The P14 is based on the PC-MIP ANSI mezzanine standard. It can be used as an I/O extension in any type of bus system, i.e. CPCI, PXI, VME or on any type of stand-alone SBC. Appropriate PC-MIP carrier cards in 3U, 6U and other formats are available from MEN or other manufacturers. Comparable with the larger foot print PMC mezzanine cards, PC-MIP boards also support PCI bus.

The P14 PC-MIP is a 400-Mbps controller for the IEEE 1394 High Performance Serial Bus, also known as FireWire (TM Apple) and i.LINK (TM Sony). The IEEE 1394 defines a high-speed next-generation network topology and protocol. Guaranteed bandwidth is provided for mission critical applications and make

the P14 a fast, reliable and universal interconnection between computers and I/O devices.

The P14 is provided with an integrated LLC/PHY chip, being fully compatible to OHCI-based software (implicit part of the MS Windows® operating systems as of Windows® 98SE and Windows® 2000). The data transfer rate is specified at 400Mbps/s (200/100Mbps/s). When sourced by the 6-pin 1394 connector with integrated power distribution, peripheral devices attached to the P14 need no separate power supply.

Live connect/disconnect, digital video and audio processing or high-speed data storage systems are typical applications for the P14.

Technical Data

Controller

- TI TSB43AA22 Integrated 1394a-2000 OHCI PHY/Link Layer Controller

Data Transfer Rates

- 100, 200 and 400Mbits/s

PCI Characteristics

- 32-bit PCI, complying with PCI Local Bus Specification, Rev. 2.1
- Target and initiator

Peripheral Connections

- Via front panel on a shielded 6-pin Molex receptacle connector

Miscellaneous

- Cable Active LED for on-board diagnosis

Electrical Specifications

- Supply voltage/power consumption:
 - +5V (4.85V..5.25V), 100mA max.
 - +3.3V (3.0V..3.6V), 300mA max.
 - +12V (11.4V..12.6V), 100mA max. (without 1394 cable power charge)
- MTBF: tbd. @ 50°C

Mechanical Specifications

- Dimensions: PC-MIP Type II conforming to PC-MIP specification
- Weight: 23g

Environmental Specifications

- Temperature range (operation):
 - 0..+60°C
 - Industrial temperature range on request
 - Airflow: min. 10m³/h
- Temperature range (storage): -40..+85°C
- Relative humidity (operation): max. 95% non-condensing
- Relative humidity (storage): max. 95% non-condensing
- Altitude: -300m to + 3,000m
- Shock: 15g/0.33ms, 6g/6ms
- Vibration: 1g/5..2,000Hz

Safety

- PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers

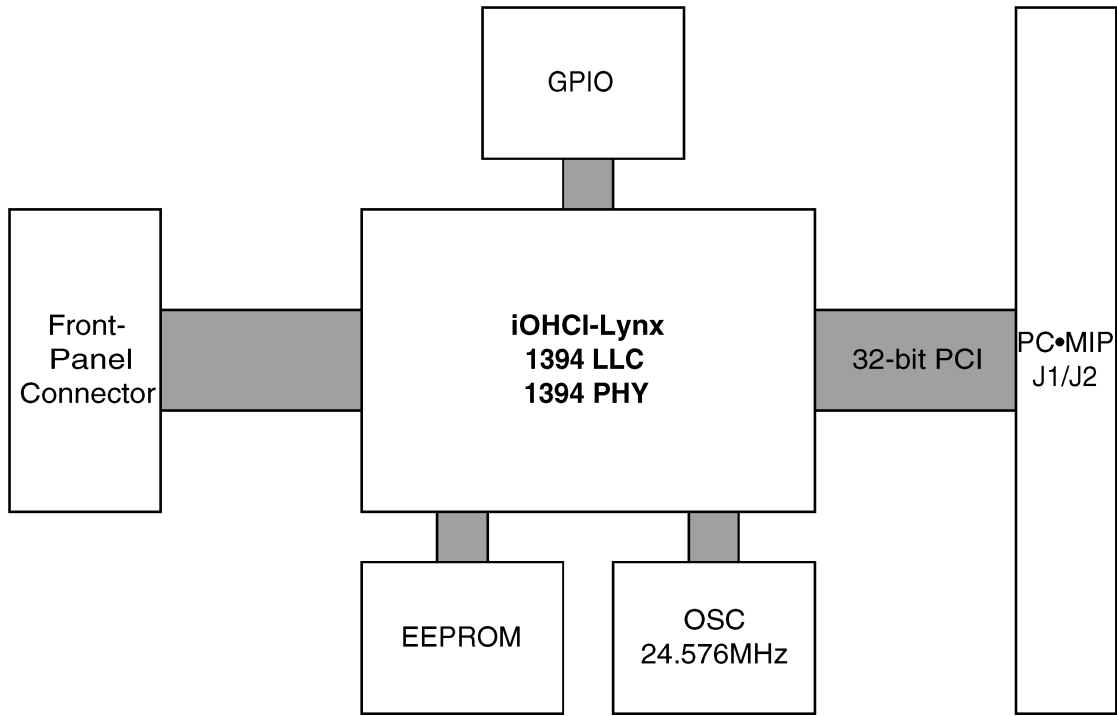
EMC

- Tested according to EN 55022 / 1999-05 (radio disturbance) and EN 55024 / 1999-05 (immunity) with regard to CE conformity

Software Support

- Windows 98 and Windows 2000, no drivers necessary

Diagram



Related Products

Standard Hardware

15P014-00	P14, PC-MIP Type II (front I/O), IEEE1394 FireWire, OHCI PHY/Link Layer Controller TI TSB43AA22, 400Mbits/s
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Please refer to our PC-MIP and PMC compare chart for a selection of mezzanine functions.

Documentation

20P000-00	PC-MIP draft specification Rev. 0.92b
20P014-00	P14 user manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the P14 online data sheet under www.men.de. --> [Click here!](#)

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