Product Name: Sirrix PCI2E1 Dualport E1 PCI Card
Manufacturer: Sirrix
Model Number: SIRRIX.PCI2E1

Availability: In Stock

Sirrix PCI2E1 2 ISDN PRI Ports (60 Channels)

The Sirrix PCI2E1 is a PCI based ISDN interface card. It provides 2 BRI (Basic Rate Interface) ports that can be connected directly to both, the public ISDN end-user devices like telephones and fax machines. The Sirrix PCI5SO is full ISDN compatible and thus it can be employed for voice applications as well as for Data communications.

Hardware Structure

The BRI ports are provided by four Inineon PSB 21150 (IPAC-X) interface circuits. There is a 32 kbyte SRAM on card that can be used for buffering the B-channel data between hardware and the software application. The communication with the software is realized by an FPGPA using the PCI bus.

The optionally available Crypto mechanisms are realized in hardware and included within the FPGPA. They allow a zero-delay encryption and decryption of the B-Channels

BRI Interface Lines

All 4 BRI lines of Sirrix PCI2E1 can be configured independently to work in the NT mode (Terminal Equipment. In both modes they can be operated as PtMP (Point-to-Multipoint) or as PtP (Point-to-Point). Moreover - and in all configurations the Sirrix PCI2E1 support the MSNs (Multiple Subscriber Number) and DDI (Direct Dialin In).

Integrated PCM Bus

Using the Sirrix PCM bus one can link up several Sirrix PCI2E1 cards building a fully hardware based ISDN switching network. This provides a zero-delay perfect-quality voice and data transmission.

Power Supply

Sirrix PCI2E1 can be connected with an internal 40V power supply (Sirrix PS40V-A). The power is transfomed from the computers internal 12V power supply. Every line can be selected to be supplied by jumper configuration. Moreover every line can be terminated (100 Ohm resistor for BRI Line termination) also by using jumers.

Optical Display

The activation of the BRI lines are indicated on 4 LEDs. An additional LED indicated the status of the FPGA while another LED is freely programmable.

ISDN Facilities Support

Almost all ISDN facilities are supported by Sirrix PCI2E1. This encloses, e.g. CLIP (Call Line Identification, CF (Call Forwarding, CW (Call Waiting), Call Hold and Transfer, Advice of Charge (AOC) amd AOC During Call (AOCD), 3PTY (3 Party Conference etc. These facilities are supported by our comprehensive ISDN stack implementation. They can be used in PBX applications to provide the corresponding facilities.

Possible Applications

 • Sirrix PCI2E1 can bs used e.g. with the open source PBX software Asterisk for which we provide a channel driver.
 • With Sirrix PCI2E1, everyone can build flexible COTS-based PBX suste,s tjhat allow much more facilities than common PBX.
 • Moreover SIrrix PCI2E1 can be used to build ISDN crypto-gateways or Coive over IP gateways or t least cost routers.

Requirements

sirrix PCI2E1 card can be operated in an arbritary PCI based system with 32 bit PCI2.1 and with Linus Kernel 2.6

Hardware

 • PCI V2.1 Card 175mm x 102mm incl PCI connector + bracket.
 • Four S0 ports (BRI) 1 x RJ45 port each
 • Programmable gate array (FPGPA Altera Acex)
 • LED (D9) for display of FPGA status
 • Freely programmable LED (D11)
 • 32 kByte SRAM as B-Channel buffer for software switching with a depth of 64., 128, 256 or 512 byte.
 • Sirrix PCM bus for B channel switchingf in hardware across multiple cards (band-width 12,288 MBit = 192 B-channels).
 • Conference room for three parties (3PTY) in A-Law / u-law codec with a data delay of only one frame (usec)
 • Retrievable serial number
 • Transparent encryption with low delay of B-channels with an arbritary block cipher in the operation modes OFB,CFB, CTRor with another arbritary stream cipher.

ISDN Hardware

- S0 Ports (BRI) Infineon PSB21150 ISAC-XV1.4
- Each S0 port is configurable in NT or TE mode independently.
- 100 ohm terminating resistors.
- S0 power supply (POWER12, POWER34) 40V power supply Sirrix PS40V-A at POWER-40V); current limiter to 0, 1 A (4W per port onboard (ETSI EN 300 012-1)
- One LED for each S0 port for display od the layer 1 activation state (LEDs D12 + D13)

Additional Features

- Notify Information Element e.g. during HOLD or 3PTY
- Redirection Party Number Information Element.
- Echo Cancellation (with software switching e.g. for VOIP

Applications

- Software based PBX systems (e.g. Asterisk)
- ISDN crypto gateways
- VoIP gateway to the public telephone network or VOIP gateway for internal extensions; channel banks.
- Least Cost Router for VOIP or CbC

Scalability

- Sirrix PCM-Bus sipports up to 12 PCI Cards with 96 B-channels in each system
- By interlinking multiple systems a virtually arbritary amount of extensions can be served
- The connection to the public net can be achieved by an arbritary number of S0 or S2M-ports

System Requirements

- Arbritary Computer System
- Free 32bit PCI 2.1 slot
- Linux with Kernel 2.6

Price: £999.00