

## Sangoma A102DE PCI Express PRI ISDN Card



Product Name: Sangoma A102DE PCI Express PRI ISDN Card

Manufacturer: Sangoma

Model Number: A102DE

Sangoma A102DE PCI Express PRI ISDN Card

Please Note: This is a PCI Express Card. Please make sure your motherboard/server is compatible with this product.

[View PCI vs PCI-Express example](#)

The A102DE PCIx has hardware based echo cancellation across 60 channels

The A102 is Sangoma's next generation hardware designed for optimum support of data and voice over T1 and E1. Sangoma A102DE Key Features

- ½ Available as Single T1/E1 port (A101) or Dual T1/E1 port (A102) with daughterboard (as shown in photograph).

- ½ Dimensions: 2U Form factor: 120mm x 55 mm for use in restricted chassis.

- ½ 32 bit bus master DMA data exchanges across PCI interface at 132Mbytes/sec for minimum host processor intervention.

- ½ Intelligent hardware: Downloadable Field Programmable Gate Array programming with multiple operating modes.

Operational modes

Data only

T1/E1 and fractional T1/E1, single channel HDLC per line. Can be used as a hub for sub-DS1 remotes. The A101c and A102c can support any configuration of up to 62 DS0s carrying Frame Relay, PPP or HDLC data. Raw bitstream interfaces can be used to support arbitrary non standard line protocols such as non-byte aligned monosynch or bisynch.

Voice modes Supports Robbed Bit Channel Associated Signaling (CAS) and ISDN PRI. Block mode raw bit-stream interface for integration with the Asterisk Open Source PBX/IVR platform. Channelized mode supporting individual DMA into voice timeslots plus on-board HDLC support of PRI channel for soft PBX implementations that can use these features.

Mixed Voice/Data mode Combination of router/PBX functions in one server. Both 8 bit (64kbps per channel) and 7 bit (56kbps per channel) board-level HDLC support. WAN data connection is supported by Sangoma's standard WANPIPE® routing stack providing certified Frame Relay, PPP, HDLC and X.25. RAIV: Receive Loss of Signal YEL: Receive Telco Yellow Alarm Line protocols Voice CAS and PRI, ATM, Frame Relay, X.25, HDLC, PPP, SS7, Transparent bit-stream, BSC.

Sangoma A102DE - Technical Specifications

General Features

- ½ Available as Single T1/E1 port (A101) or Dual T1/E1 port (A102) with daughterboard (as shown in photograph).

- ½ Dimensions: 2U Form factor: 120mm x 55 mm for use in restricted chassis.

- ½ 32 bit bus master DMA data exchanges across PCI interface at 132Mbytes/sec for minimum host processor intervention.

- ½ Intelligent hardware: Downloadable Field Programmable Gate Array programming with multiple operating modes.

- ½ Power: 800mA peak, operational 300mA max at +3.3v or 5v.

- ½ MTBF: > 1 Million hours. Autosense compatibility with 5v and 3.3v PCI busses.

- ½ Temperature range: 0 - 50C.

- ½ Line decoding: HDB3, AMI, B8ZS.

- ½ Framing: CRC4, non-CRC4, ESF, D4T1/E1.

## Sangoma A102DE PCI Express PRI ISDN Card

• Clocking mode: Normal, Master.

Production quality

• ISO 9002

Warranty

• Five years parts and labour.

Operating systems

• Linux (all versions, releases and distributions from 1.0 up). Windows NT/ 2000/ XP, FreeBSD, Open BSD, NetBSD, Solaris

Voice applications

• Asterisk, Yate, OPAL Open PBX/IVR

Higher level protocols

• IP/IPX over Frame Relay/ PPP/ HDLC/ X.25, X.25 over Frame Relay (Annex G), BSC over X.25 (DMT and TCOP), SNA over X.25, PPPoE, PPPoA, IP over ATM.

T1/E1 Status alarms

• ALOSV: Loss of Signal alarm LOS: Receive Loss of Signal

• ALTLOS: Alternate loss of Signal Status OOF: Out of Frame RED: Telco Red Alarm condition

• AIS: Alarm Indication Signal

• OOSMFV: Loss of Signaling Multiframe OOCMFV: Loss of CRC Multiframe OOOFV: Out of Off-Line Frame

Diagnostic tools

• WANPIPEMON, SNMP, System logs

**Price: \$1,319.12**