

## Sangoma A104 PCI PRI ISDN Card



Product Name: Sangoma A104 PCI PRI ISDN Card

Manufacturer: Sangoma

Model Number: A104

Sangoma A104 PCI PRI ISDN Card

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

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

Sangoma A104 (AFT card with four channelised T1 ports) AFT card with four T1/E1 or fractional T1/E1 port, each supporting a single channel data stream. A general purpose card supporting all applications including WANPIPE?.Sangoma A104 Key Features

- Quad port T1/E1/J1 card.

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

- 32 bit bus master DMA data exchanges across PCI interface at

- 132Mbytes/sec for minimum host processor intervention.

- Ring buffer DMA handling for minimum host intervention and guaranteed data integrity on high volume systems.

- Intelligent hardware: Downloadable Field Programmable Gate Array programming with multiple operating modes. Allows new features related to voice and/or data to be added when they become available.

The A104 is an updated, quad port version of Sangoma's range of Advanced, Flexible Telecommunications (AFT) hardware designed for optimum support of voice and data over T1, E1 and J1.

Based on bus mastering PCI technology supported by a ring-buffer DMA architecture, the A104 provides full speed 132 Mbps PCI bus transfer with minimal real-time processor load. This provides optimal performance in demanding environments such as soft PBX/IVR voice applications (eg. Asterisk?).

Operational Modes

Data only:

- T1/E1 and fractional T1/E1, single channel HDLC per line.

- Full channelised mode to act as major network hub for sub-DS1 remotes. The A104 can support any configuration of up to 124 remote 64kbps connections carrying Frame Relay, PPP or HDLC data. Timeslots can be concatenated to support remote fractional T1/E1/J1 sites in any combination.

- Raw bitstream interfaces can be used to support arbitrary non standard line protocols such as non-byte aligned monosynch or bisynch.

Voice modes:

- The A104 and drivers fully support TDM voice gateways for the Asterisk? PBX project, as well as other Open Source and proprietary PBX/Switch/IVR applications.

- Mixed Voice/Data mode:

- Robust combination of router/PBX functions in one server.

- WAN data connection is supported by Sangoma's standard WANPIPE? routing stack , completely independently of TDM voice application for total system reliability.

- WANPIPE? supports certified, field tested and reliable Frame Relay, PPP,

- HDLC and X.25.

## Sangoma A104 PCI PRI ISDN Card

### Sangoma A104 - Technical Specifications General Features

- Quad port T1/E1/J1 card.
- Dimensions: 2U Form factor: 120mm x 55 mm for use in restricted chassis.
- 32 bit bus master DMA data exchanges across PCI interface at 132Mbytes/sec for minimum host processor intervention.
- Ring buffer DMA handling for minimum host intervention and guaranteed data integrity on high volume systems.
- Intelligent hardware: Downloadable Field Programmable Gate Array programming with multiple operating modes. Allows new features related to voice and/or data to be added when they become available.
- Power: 800mA peak, operational 300mA max at +3.3v or 5v.
- Autosense compatibility with 5v and 3.3v PCI busses.
- Temperature range: 0 - 50C.
- Line decoding: HDB3, AMI, B8ZS.
- Framing: CRC4, non-CRC4, ESF, D4T1/E1.
- Clocking mode: Normal, Master.
- 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
  - OOOFFV: Out of Off-Line Frame
  - RAIV: Receive Loss of Signal
  - YEL: Receive Telco Yellow Alarm

### Line protocols

- Frame Relay, X.25, HDLC, PPP, SS7, Transparent bit-stream, BSC.

### Operating systems

- Linux (all versions, releases and distributions from 1.0 up)

### Higher level protocols

- Asterisk Open PBX/IVR, 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.
- Warranty
  - Three years parts and labour.

### Certification

- FCC Part 15 Class A, FCC Part 68, CE., Declaration of Conformity

### Diagnostic Tools

- WANPIPEMON, SNMP, System logs.

### Production quality

## Sangoma A104 PCI PRI ISDN Card

1½ ISO 9002  
1½ RJ 45 Pin-out

**Price: £1,123.00**

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