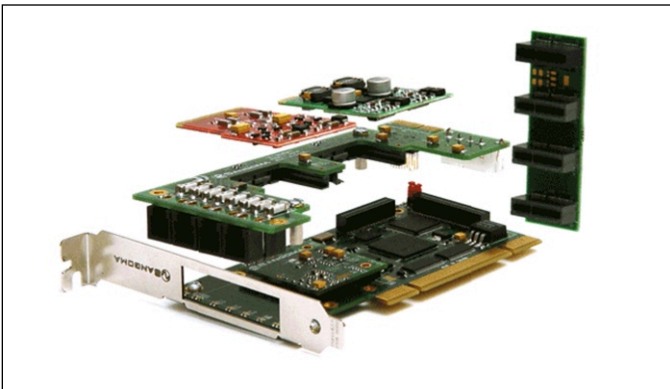




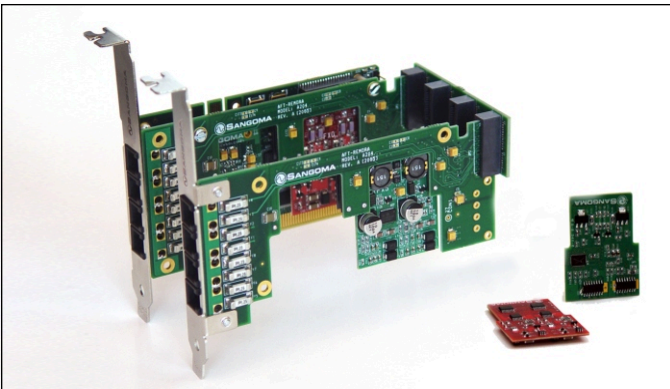
**SANGOMA**

## A200/REMORA 4 port FXO/FXS

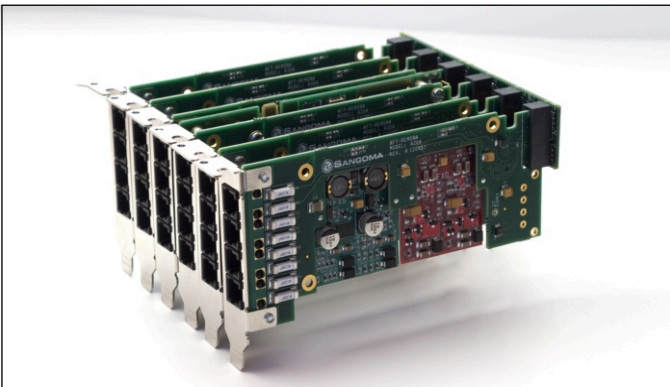
### *Expandable Analog Telephony System*



A200 main board disassembled



A200 main board with optional REMORA daughter board



Maximum configuration - total of 24 ports

Sangoma's A200 4 port FXO/FXS card delivers superior audio qualities and is expandable to 24 ports in a 2U form factor, with optional carrier-grade echo cancellation.

As you need them, additional REMORA cards can be added to the base four port A200 card. A single PCI slot hosts connection for up to 24 ports and ensures common synchronous clocking for all channels.

The A200 AFT architecture is shared with Sangoma's A101, A102, A104 and A108 cards ensuring common 3.3v/5v, high performance and universal PCI compatibility.

Like all the Sangoma AFT Series, the **A200** and **REMORA** system has field upgradeable firmware to take advantage of enhancements as they become available. Optionally, the A200 supports Sangoma's echo cancellation and voice enhancement DSP daughterboard for carrier grade echo cancellation and voice enhancement.

### *Architecture*

The **A200** consists of a **REMORA** daughterboard mounted on the **AFT PCI** card. The **REMORA** card has two sockets each which can accept an **FXO-2** or **FXS-2** module. Each **FXO-2** or **FXS-2** module supports two FXO or FXS lines respectively.

Up to **five** additional **REMORA** daughterboards can be mounted in empty slot positions beside the **A200** assembly, connected to the **A200** by a backplane bus connector.

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## Technical Specifications

- From 2 to 24 ports supported, mixing FXO and FXS interfaces as required.
- Support for the **Asterisk™**, **Yate™**, **FreeSwitch™** **OPAL™** PBX/IVR projects, as well as other Open Source and proprietary PBX/Switch/IVR/VoIP gateway applications.
- Single synchronous PCI interface for all 24 FXO/FXS ports.
- Four RJ11 ports per **REMORA** card.
- Dimensions: 2U Form factor: 120mm x 55 mm for use in restricted chassis.
- Short 2U compatible mounting clips available for installation in 2U rack-mount servers.
- 32 bit bus master DMA data exchanges across PCI interface at 132Mbytes/sec for minimum host processor intervention.
- Autosense compatibility with 5v and 3.3v PCI busses.
- Fully PCI 2.2 compliant, compatible with all commercially available motherboards, proper sharing of PCI interrupts.
- Intelligent hardware: Downloadable Field Programmable Gate Array programming with multiple operating modes. Field upgradeable so that new features can be added when they become available.
- Power: 800mA peak, operational 300mA max at +3.3v or 5v.
- Temperature range: 0 – 50C.

Optional DSP daughterboard on the A200d

- G.168-2002 echo cancellation in hardware
- 1024 taps/128ms tail per channel on all channel densities
- DTMF decoding and tone recognition
- Voice quality enhancement: Octasic music protection, acoustic echo control and adaptive noise reduction.

## Operating Systems

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

## Wiring Connections

The A200 and Remora cards incorporate four, 4 pin RJ11 narrow jacks such as used in telephone handsets. Each A200/Remora is shipped with four 2m cables terminating in a narrow RJ11/4 plug at one end and a telephone-standard RJ11/6 plug at the other.

For those who need to hard wire the A200 system, Sangoma provides a kit of 12 RJ11/4 plugs and a crimping tool.

## Certification

FCC Part 15 Class A, FCC Part 68, CISPR 22, EN 55022 Class A, CIPSR 24, AFIC-S016, IEC 60950.

Technical certifications in Russia and Malaysia.

## Diagnostic Tools

WANPIPEMON, SNMP, System logs

## Production Quality

ISO 9002

## Warranty

**Five years parts and labour.**

## Contact Information



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