

Sangoma Telephony Card

A400 2-24 Port Scalable FXO/FXS

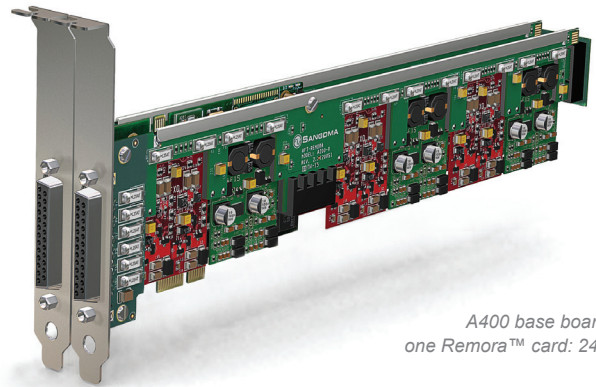
The A400 and Remora system expands up to 24 ports.

Superior audio quality in a card that is expandable from two to twenty-four ports in a 2U form factor, the Sangoma A400 FXO/FXS card is a high-density version of the popular A200 model.

For optimum echo-cancelled voice quality and enhancement, choose the A400D model with echo cancellation hardware. One DSP echo canceller on the A400D base card will support telco-grade hardware echo cancellation on all channels, up to the card's maximum configuration in 24 ports with no additional CPU load.

To reach this configuration, simply add additional Remora™ cards to any base card in the A400 Series. A single PCI or PCI Express slot hosts the connection and ensures common synchronous clocking for all channels.

Like all the cards in the award-winning Sangoma AFT series product line, the A400 and Remora™ system's architecture is shared with Sangoma's A101, A102, A104, A108 and A200 cards, ensuring common 3.3 V or 5 V, high performance,



universal PCI or PCI Express compatibility, and crash-proof field upgradable firmware to take advantage of enhancements, as they become available.

Sangoma cards guarantee error-free faxing and click-free audio on analog-digital links.*

Technical Specifications

- From 2 to 24 ports supported, mixing FXO and FXS interfaces, as required
- Support for Asterisk®, FreeSWITCH®, and Yate as well as other Open Source and proprietary PBX, Switch, IVR, and VoIP gateway applications
- Single synchronous PCI interface for all 24 FXO/FXS ports
- Connects to punch block using the **included standard 12-line colour coded telephone cable** or choose the optional Amphenol-Y cable (shown below) that connects up to 24 lines to a telephone patch panel (sold separately)
- Dimensions: 2U Form factor: 290 mm x 55 mm for use in 2U chassis; includes both standard and short 2U compatible mounting clips for installation in 2U rack-mount servers
- 32 bit bus master DMA data exchanges across PCI interface at 132 Mbytes/sec for minimum host processor intervention

- Autosense compatibility with 5 V and 3.3 V PCI busses
- Fully PCI 2.2 compliant, compatible with all commercially available motherboards, and proper sharing of PCI interrupts
- Intelligent hardware: Downloadable Field Programmable Gate Array programming with multiple operating modes; field upgradable so that new features can be added when they become available
- Power: 800 mA peak, operational 300 mA max at +3.3 V or 5 V
- Temperature range: 0 – 50 °C

Get the Fax on Sangoma Hardware

- With Sangoma, there is no need for a separate analog line to run your fax machine
- Using T1/E1 passthrough with Sangoma analog cards, there are no clock slips, buffer overruns, or transmit underruns that cause missed lines, blank sheets, and missed pages when faxing



*Hardware echo cancellation option required.

- Sangoma A200 and A400 cards synchronize perfectly with digital T1/E1 cards and the PSTN atomic clock for error-free fax and modem passthrough and superior voice quality over T1 and E1 lines*

Optional: DSP Echo Canceller Daughterboard on the A400D

- G.168-2002 echo cancellation in hardware
- 1024 taps/128 ms tail per channel on all channel densities
- DTMF decoding and tone recognition
- Voice quality enhancement: music protection, acoustic echo control and adaptive noise reduction
- No CPU load as a result of echo cancellation
- Does not increase the physical size of the card, and no additional slot is required

Operating Systems

- Windows® 2003, Windows® XP, Windows® Server 2008, Windows® Vista, Windows® 7
- Linux (all versions, releases and distributions from 1.0 up)

Diagnostic Tools

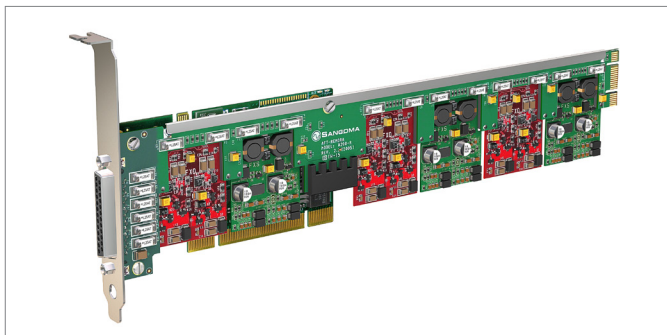
WANPIPEMON, SNMP, system logs

Certification

- FCC Part 15 Class A, FCC Part 68, and EN 55022 Class A
- Technical certifications in Russia and Malaysia

Architecture

The A400 consists of a Remora™ daughterboard mounted on the AFT PCI card. The Remora™ card has six sockets, each of which can accept a FXO-2 or FXS-2 module. Each FXO-2 or FXS-2 module supports two FXO or FXS lines, respectively.



Up to one additional Remora™ daughterboard can be mounted in empty slot positions beside the A400 assembly and connected to the A400 Base Card by a backplane bus connector.

Each 12-port A400 Remora™ card has a robust DB25 connection to an included standard 12-line, colour-coded telephone cable that is ready for hardwiring into a punch block at the PSTN connection.

Warranty

Lifetime warranty on parts and labour. Plus a 30-day no questions asked return policy.

Production Quality

ISO 9002

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