



# Analog Telephony Cards

A4A, A4B, A8A, A8B, TDM2400, AEX2400



For many SMBs and SOHO businesses, analog telephone lines are still their primary method of accessing the PSTN. For over three decades, Sangoma has been providing the highest quality analog telephony cards for FreePBX, PBXact, Asterisk, and many other proprietary phone systems to connect to the PSTN.

Trusted by tens of thousand of worldwide customers and projects, Sangoma's analog cards are trusted for their dependability, flexibility, and interoperability. Sangoma's telephony cards are compatible with virtually all environments and standard servers. Sangoma is the global leader in telephony interfaces.

## Use Cases:

- › Channel banks
- › Small Office Home Office (SOHO) applications
- › SMB applications
- › Analog trunks
- › Loopstart server applications

## Analog Cards

- › **A4A** (4 ports, RJ11, PCI 2.2+, 3.3/5.0 V connector, FXO module single trunk, FXS module single station)
- › **A4B** (4 ports, RJ11, PCI-E 1.0+, X1 connector, FXO module single trunk, FXS module single station)
- › **A8A** (8 ports, RJ11, PCI 2.2+, 3.3/5.0 V connector, FXO module single and/or quad trunk, FXS module single and/or quad station)
- › **A8B** (8 ports, RJ11, PCI-E 1.0+, X1 connector, FXO module single and/or quad trunk, FXS module single and/or quad station)
- › **TDM2400** (24 ports, 50-Pin RJ21, PCI 2.2+, 3.3/5.0 V connector, FXO module quad trunk, FXS module quad station)
- › **AEX2400** (24 ports, 50-Pin RJ21, PCI-E 1.0+, X1 connector, FXO module quad trunk, FXS module quad station)

## The Highest Quality Analog Telephony Interface Cards

### Quick Facts:

- › 1-24 Ports FXO/FXS (Scalable)
- › Optional Telco Grade Echo Cancellation
- › Compatible with Most Motherboard, Linux & Windows Operating Systems
- › Plug&Play with PBXact & FreePBX

# Product Specifications

Interfaces	
Telephony Interfaces	
A4A/B	1-4 ports of FXS/FXO (Scalable) using S110M/X100M single port modules
A8A/B	1-8 ports FXS/FXO (Scalable) using S110M/X100M single port modules or S400M/X400M quad port modules
TDM2400/AEX2400	4-24 ports FXS/FXO (Scalable) using S400M/X400M quad port modules
PCI Interfaces	
PCI or PCI Express 1.0 and greater	
Fully PCI 2.2 compliant, compatible with all commercially available motherboards, and shares PCI interrupts	
Autosense compatibility with 5 V and 3.3 V PCI busses	
Compatible with PCI-E slots x1 to x16	
Features	
PBX Support	
FreePBX, PBXact, Asterisk	
Operating System Support:	
Linux (All versions, releases and distributions from 1.0 up)	
Server and Motherboard Support	
Compatible with most commercially available servers and motherboards	
DSP Echo Cancellor *Optional	
G.168-2002 echo cancellation in DSP hardware	
1024 taps/128 ms tail per channel on all channel densities	
No CPU load as a result of echo cancellation	
Double talk detection	
Wiring Connections	
A4A/B & A8A/B	6-pin RJ11 jacks (4 for A4A/B and 8 for A8A/B) *Cables not included
TDM2400/AEX2400	Single 50-pin RJ21 connector *50-pin amphenol cable sold separately

Hardware	
Environmental	
Temp (operation)	0 to 50° C (32 to 122° F)
Temp (storage)	20 to 65° C (4 to 149° F)
Humidity	10 to 90% noncondensing
Dimensions	
A4A/B	6.3" x 2.52" x 0.591"
A8A/B	6.18" x 4.21" x 0.591"
TDM2400/AEX2400	12.28" x 4.2" x 0.68"
Mounting	
Includes standard mounting bracket Half-Length bracket available for purchase	
Compatible with all commercially available motherboards	
Power Requirements	
A4A/B	PCI: 4W
PCI Express: 5W	
3.5W (2FXS into 3 REN), 5W (4FXS into 3 REN)	
A8A/B	PCI: 5W
PCI Express: 7W	
6.5W (4FXS into 2 REN), 13W (8 FXS into 5 REN)	
TDM2400	3.3V @1.0W, 5V @9.0W
12V @11-20 W	
AEX2400	3.3V@4W, 5V@9W
12V@11-20W	

Modular design lets you choose between the interchangeable FXS or FXO modules to create your channel requirements.

**FXS Modules** are used for connecting analog telephones and fax machines, and connecting to the FXO ports of an analog phone system.

**S110M** supports one channel/port of FXS and is used with A4/A8 cards.

**S400M** supports up to four channel/ports of FXS and is used with A8/TDM2400/AEX2400 cards.

**FXO Modules** are used for connecting directly to PSTN provider lines and receive ring voltage from FXS devices.

**X100M** supports one FXO channe and one PSTN trunk line and is used with A4/A8 cards.

**X400M** supports up to four channel/ports of FXS and is used with A8/TDM2400/AEX2400 cards.

