

ATCOM® Analog Card AX-400P

Product Guide

Version: 1.0

The Installation of AX-400P with Elastix 1.6

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Contact ATCOM

The Introduction of ATCOM

Founded in 1998, ATCOM technology has been always endeavoring in the R&D and manufacturing of the internet communication terminals. The product line of ATCOM includes IP Phone, USB Phone, IP PBX, VoIP gateway and Asterisk Card.

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ATCOM Wiki Website: http://www.openippbx.org/index.php?title=Main_Page

Download Center: <http://www.atcom.cn/download.html>

Chapter 1 the Introduction of AX-400P

Overview of the AX-400P

AX-400P Asterisk card is the TDM400P compatible PCI card that supports up to four FXO and FXS ports. Using AX-400P analog card, open source Asterisk PBX and stand alone PC, users can create their SOHO telephony solution includes all the sophisticated features of traditional PBX, and extend features such as voicemail in IP PBX. User can use AX-400P analog card with standard zaptel driver and Asterisk source code without modify any code. The FXO and FXS modules are interchangeable to suit various requirements.

Features

- Analog card for Asterisk PBX
- Support Asterisk PBX and zaptel driver
- Support up to four fxo/fxs analog port
- Suitable for SOHO PBX / VoiceMail / IVR.
- Caller ID and Call waiting Caller ID
- Conference

Configuration

- Motherboard: AX-400P
- Single port FXS module: AX-110S
- Single port FXO module: AX-110X

Hardware requirement

- 500-Mhz Pentium III
- 64MB RAM
- 3.3V or 5V PCI 2.2 slot

PCI card dimension:

102mm (height) × 134mm (Length)

Chapter 2 Hardware Introduction

Hardware Configuration

Motherboard: AX-400P

Modules: AX-110X, AX-110S

Warning: Please do not plug and unplug the card when the PC power is on.

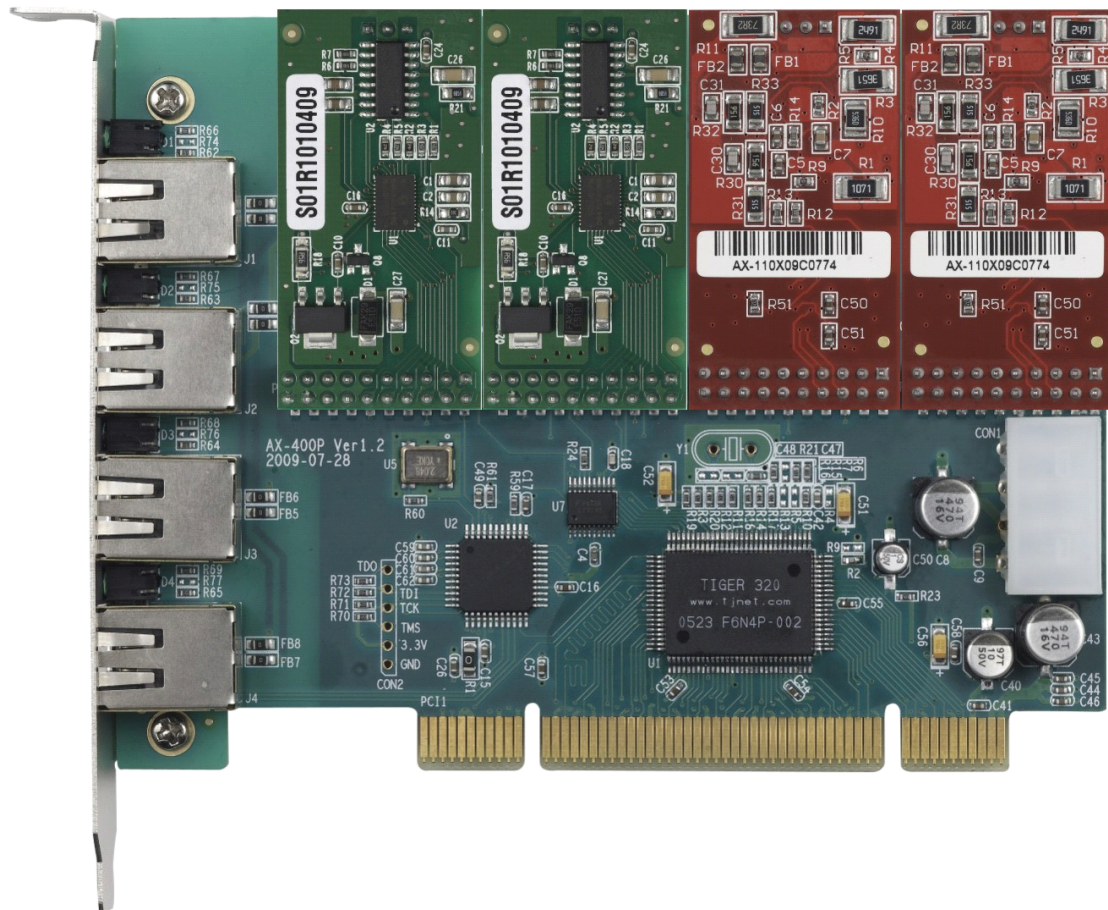


Figure 1: AX-400P with 2 AX-110S and 2 AX-110X

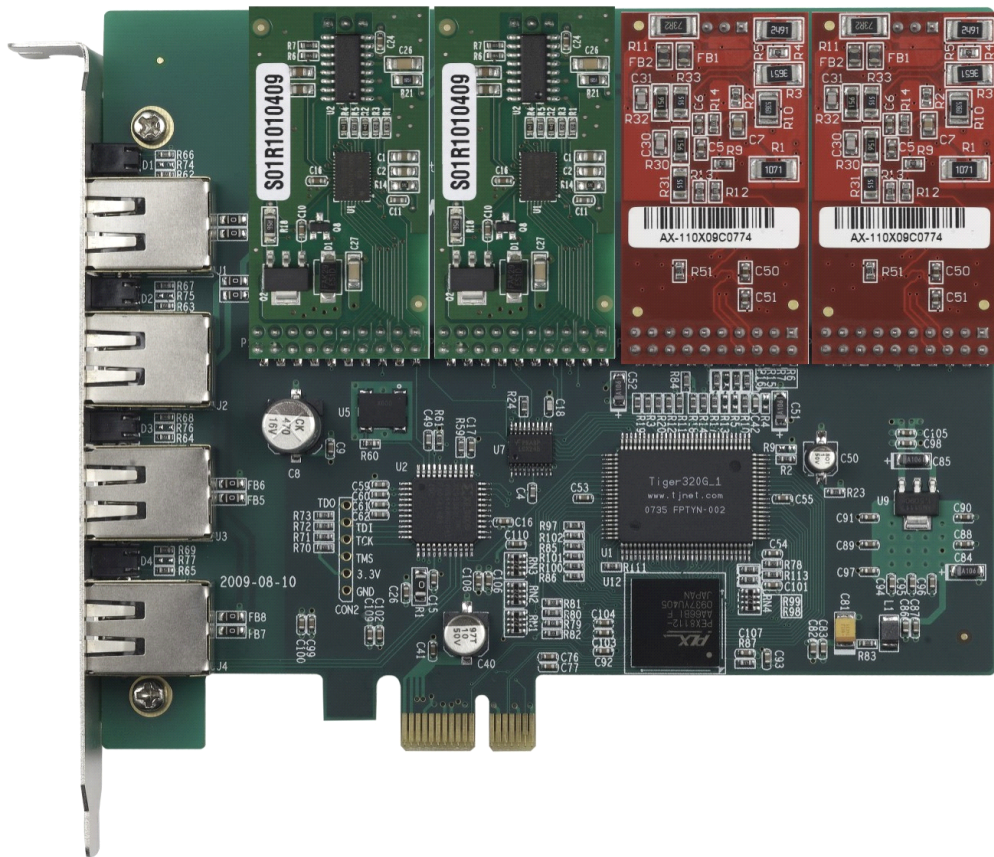


Figure 2: AXE-400P with 2 AX-110S and 2 AX-110X

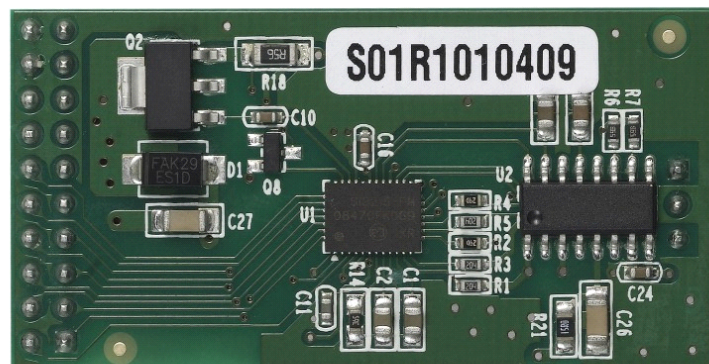


Figure 3: AX-110X Single FXS Module

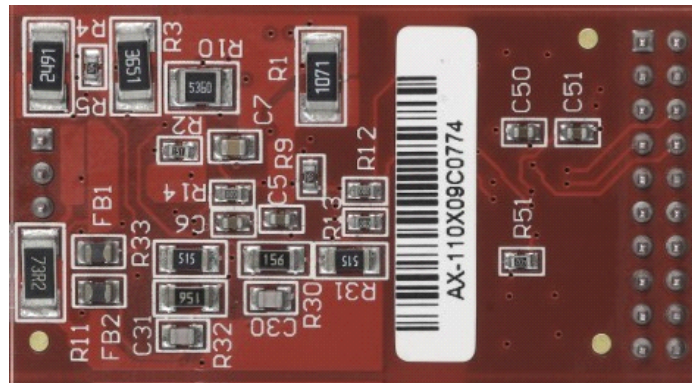


Figure 4: AX-110S Single FXO Module

Chapter 3 Software Installation

Test Environment:

Elastix 1.6
AX-400P
4 AX-110X

1. After inserting the card into your PCI slot and boot your server, please use the “lspci” command to check the PCI bus compatibility. The correct output will like the following:

```
=====
05:02.0 Communication controller: Tiger Jet Network Inc. Tiger3XX Modem/ISDN interface
=====
```

An "Tiger3XX Modem/ISDN interface" will be found, if you can not see it, please poweroff your server and try another PCI slot, if it still does not help, you have to check the compatibility issue between the card and your PCI bus.

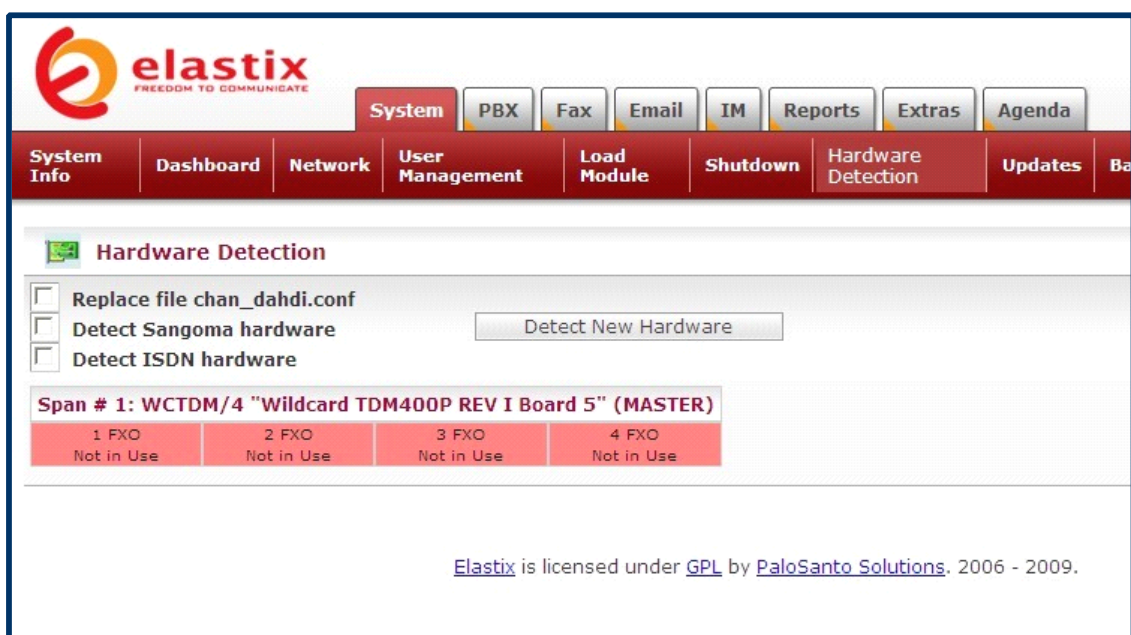
Chapter 4 Software Configuration

You have 2 ways to configure the software: configure via webpage or configure by commands.

1. Configure via webpage :

- a. Input your ip of your Elastix 1.6 host (for example:192.168.1.198) in the address bar,when you see the Elastix webpage(username:admin , secret:palosanto), click "Hardware Detection"

You will see:

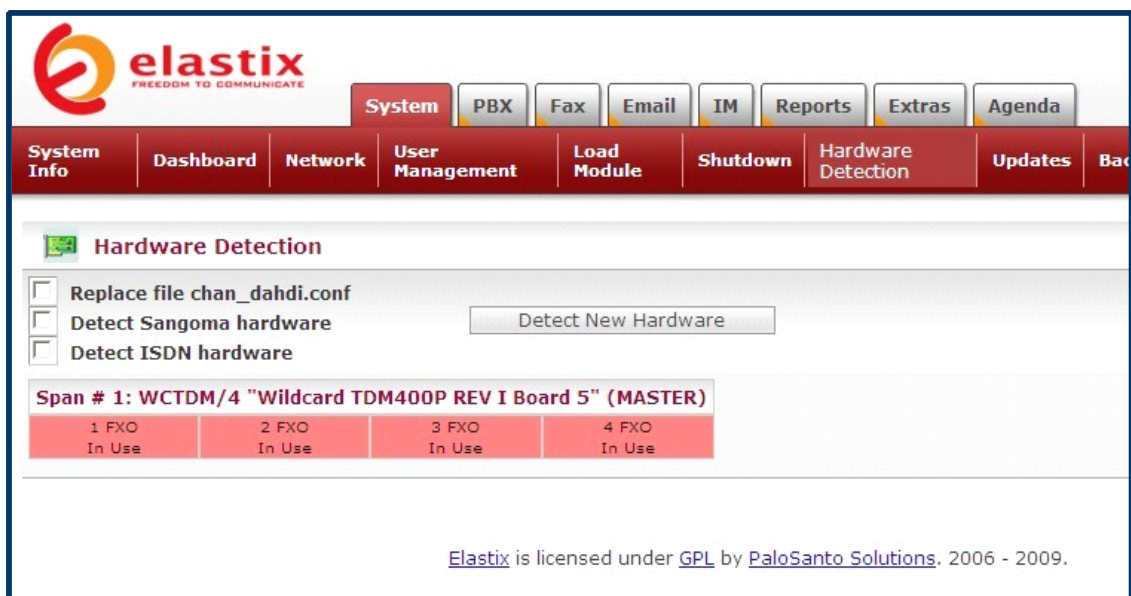


The screenshot shows the Elastix web interface. The top navigation bar includes 'System', 'PBX', 'Fax', 'Email', 'IM', 'Reports', 'Extras', and 'Agenda'. Below this is a secondary navigation bar with 'System Info', 'Dashboard', 'Network', 'User Management', 'Load Module', 'Shutdown', 'Hardware Detection', 'Updates', and 'Ba'. The main content area is titled 'Hardware Detection' and contains three checkboxes: 'Replace file chan_dahdi.conf', 'Detect Sangoma hardware', and 'Detect ISDN hardware'. A 'Detect New Hardware' button is positioned to the right of the second checkbox. Below these options is a table for 'Span # 1: WCTDM/4 "Wildcard TDM400P REV I Board 5" (MASTER)'. The table has four columns for FXO ports, all of which are currently 'Not in Use'.

Span # 1: WCTDM/4 "Wildcard TDM400P REV I Board 5" (MASTER)			
1 FXO	2 FXO	3 FXO	4 FXO
Not in Use	Not in Use	Not in Use	Not in Use

At the bottom of the page, it states: [Elastix](#) is licensed under [GPL](#) by [PaloSanto Solutions](#). 2006 - 2009.

- b. Click "Detect New Hardware", after that you will see:



This screenshot is identical to the previous one, but the status of the FXO ports in the table has changed to 'In Use'.

Span # 1: WCTDM/4 "Wildcard TDM400P REV I Board 5" (MASTER)			
1 FXO	2 FXO	3 FXO	4 FXO
In Use	In Use	In Use	In Use

At the bottom of the page, it states: [Elastix](#) is licensed under [GPL](#) by [PaloSanto Solutions](#). 2006 - 2009.

If you can see all the modules in use, that means your AX-400P is ok now.

2. Configure by commands:

- a. please use the “dahdi_genconf” command to configure the /etc/dahdi/system.conf file and generate /etc/asterisk/dahdi-channels.conf file.

```
[root@elastix ~]# dahdi_genconf
```

It does not show any output if dahdi_genconf run successfully.

- b. To check whether it has finished the configuration, please open the system.conf file:

```
[root@elastix ~]# vi /etc/dahdi/system.conf
```

You will see:

```
=====
# Autogenerated by /usr/sbin/dahdi_genconf on Wed May 12 05:29:54 2010
# If you edit this file and execute /usr/sbin/dahdi_genconf again,
# your manual changes will be LOST.
# Dahdi Configuration File
#
# This file is parsed by the Dahdi Configurator, dahdi_cfg
#
# Span 1: WCTDM/4 "Wildcard TDM400P REV I Board 5" (MASTER)
fxsks=1
echocanceller=oslec,1
fxsks=2
echocanceller=oslec,2
fxsks=3
echocanceller=oslec,3
fxsks=4
echocanceller=oslec,4
```

```
# Global data
```

```
loadzone      = us
defaultzone   = us
```

- c. [root@elastix ~]# dahdi_cfg -vvvvvvvvvvvvvv

You will see:

```
=====
DAHDI Tools Version - 2.2.0
```

```
DAHDI Version: 2.2.0.2
```

```
Echo Canceller(s):
```

```
Configuration
```

Channel map:

Channel 01: FXS Kewlstart (Default) (Echo Canceler: oslec) (Slaves: 01)

Channel 02: FXS Kewlstart (Default) (Echo Canceler: oslec) (Slaves: 02)

Channel 03: FXS Kewlstart (Default) (Echo Canceler: oslec) (Slaves: 03)

Channel 04: FXS Kewlstart (Default) (Echo Canceler: oslec) (Slaves: 04)

4 channels to configure.

Setting echocan for channel 1 to oslec

Setting echocan for channel 2 to oslec

Setting echocan for channel 3 to oslec

Setting echocan for channel 4 to oslec

- d. [root@elastix ~]# amportal restart
- e. [root@elastix ~]# asterisk -vvvvvvvvvvvgrc
- f. elastix*CLI> dahdi show channels
You will see:

Chan Extension	Context	Language	MOH Interpret
pseudo	default		default
1	from-pstn		default
2	from-pstn		default
3	from-pstn		default
4	from-pstn		default

If you can see the four channels, that means your AX-400P is ok now.

Chapter 5 Reference

<http://www.asteriskguru.com/>

<http://www.asterisk.org/downloads>

http://www.openippbx.org/index.php?title=Main_Page

<http://www.atcom.cn/>