

## **ATCOM® Analog Card AX-800P**

### **Product Guide**

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Version: 1.1

# The Installation of AX-800P with Centos 6.0

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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.

### Contact sales:

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

ATCOM Wiki Website: [http://www.openippbx.org/index.php?title=Main\\_Page](http://www.openippbx.org/index.php?title=Main_Page)

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

# Chapter 1 the Introduction of AX-800P

## Overview of the AX-800P

AX800P Asterisk card is the telephony PCI/PCI-E card that supports up to eight FXO/FXS ports. Using AX800P analog card, open source Asterisk PBX and stand alone PC, users can create their SOHO telephony solution which include all the sophisticated features of traditional PBX, and extend features such as voicemail in IP PBX. The FXO and FXS modules are interchangeable to suit various requirements.

## Features

Analog card for Asterisk PBX  
Support Asterisk PBX, zaptel and dahdi driver  
Support up to 8 FXO/FXS analog port  
Suitable for SOHO PBX / VoiceMail / IVR.  
Caller ID and Call waiting Caller ID  
Conference

## Applications

IP PBX  
IVR system  
Traditional Calls/VoIP Calls Conference

## Hardware requirement

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

## PCI card dimension:

264mm (length) × 121mm (height)

## Chapter 2 Hardware Introduction

### Hardware Configuration

Motherboard: AX-800P

Dual ports FXS module: AX-210S

Dual ports FXO module: AX-210X

One FXS port and one FXO port module: AX-210XS

Splitter: SP400

Customers can use the combination of AX-210S, AX-210X, AX-210XS modules according to their requirements. One AX-210S module supports two FXS ports, one AX-210X module supports two FXO ports, One AX-210XS module supports one FXS port and one FXO port.

#### Attention:

If you want to use FXS port with AX800P, you have to provide 12V power for the card.

If you want to use any module with AXE800P, you have to provide 12V power for the card.

Please download the dahdi-linux for the card in atcom website.

#### Warning:

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

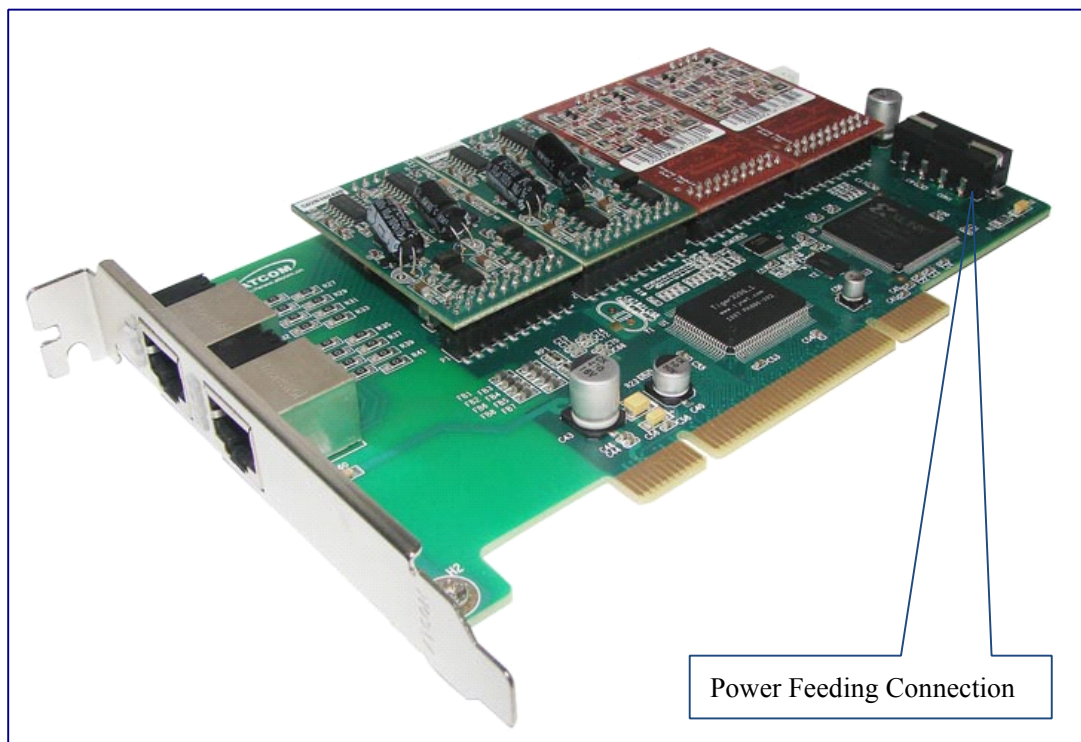


Figure 1: AX-800P

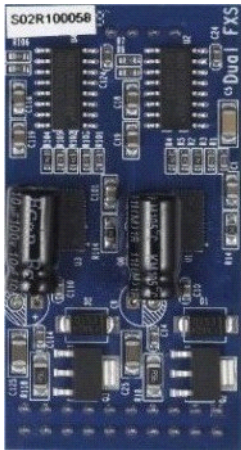


Figure 2: AX-210S

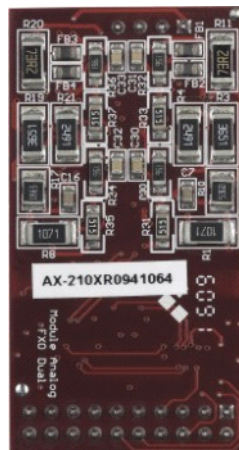


Figure 3: AX-210XS

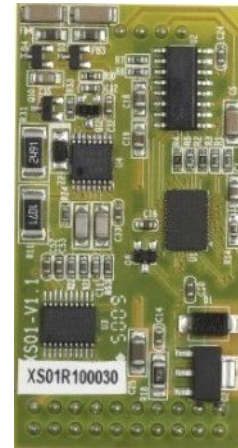


Figure 4: AX-210X



Figure 5: SP400

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## Chapter 3 Software Installation

### Test Environment:

asterisk-1.6.2.6  
dahdi-linux-complete-2.4.1.2+2.4.1  
Centos 6.0  
AX-800P+4AX-210X

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

-----  
05:04.0 Communication controller: Tiger Jet Network Inc. Tiger3XX Modem/ISDN interface  
-----

A Tiger Jet device will be found, if you can not see the Tiger Jet device, 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.

1. To install asterisk and dahdi, we have to install the following prerequisite packages:  
bison bison-devel zlib zlib-devel openssl openssl-devel gnutls-devel gcc gcc-c++  
Please use the yum install command to install the above packages.
2. Download asterisk,dahdi-linux-complete  
[root@localhost src]#  
wget <http://downloads.asterisk.org/pub/telephony/asterisk/releases/asterisk-xx>  
[root@localhost src]#  
wget  
[http://www.atcom.cn/cn/download/cards/ax800p/dahdi-linux-complete-2.4.1.2+2.4.1-3.0.tar.g  
z](http://www.atcom.cn/cn/download/cards/ax800p/dahdi-linux-complete-2.4.1.2+2.4.1-3.0.tar.gz)
3. Install asterisk,dahdi-linux-complete  
Install dahdi-linux-complete
  - 1) [root@localhost src]# tar -zxvf dahdi-linux-complete-2.4.1.2+2.4.1-3.0.tar.gz
  - 2) [root@localhost src]# cd dahdi-linux-complete-xxx+xxx
  - 3) [root@localhost dahdi-linux-complete-xxx+xxx]# make
  - 4) [root@localhost dahdi-linux-complete-xxx+xxx]# make install
  - 5) [root@localhost dahdi-linux-complete-xxx+xxx]# make config

#### Install asterisk

- 1) [root@localhost src]# tar -xvzf asterisk-xxx.tar.gz
- 2) [root@localhost src]# cd asterisk-xxx
- 3) [root@localhost asterisk-xxx]# ./configure
- 4) [root@localhost asterisk-xxx]# make
- 5) [root@localhost asterisk-xxx]# make install
- 6) [root@localhost asterisk-xxx]# make samples



## Chapter 4 Software Configuration

1. Please check if the AX-800P driver has been loaded successfully, run `cat /proc/interrupts` command and you should see one line with "ax1600p".

If you can not see "ax1600p", you can try to poweroff your server and replug AX-1600P into another PCI slot.

2. Please use the "dahdi\_genconf" command to configure the `/etc/dahdi/system.conf` file and generate `/etc/asterisk/dahdi-channels.conf` file.

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

It does not show any output if dahdi\_genconf run successfully.

```
system.conf
```

```
-----  
# Span 1: WCTDM/16 "Wildcard TDM400P REV E/F Board 17" (MASTER)
```

```
fxsks=1
```

```
echocanceller=mg2,1
```

```
fxsks=2
```

```
echocanceller=mg2,2
```

```
... ..
```

```
... ..
```

```
fxsks=7
```

```
echocanceller=mg2,7
```

```
fxsks=8
```

```
echocanceller=mg2,8
```

```
# Global data
```

```
loadzone          = us (According to your country)
```

```
defaultzone       = us (According to your country)  
-----
```

dahdi-channels.conf

-----  
; Span 1: WCTDM/16 "Wildcard TDM400P REV E/F Board 17" (MASTER)

::: line="1 WCTDM/16/0 FXSKS"

signalling=fxs\_ks

callerid=asreceived

group=0

context=from-pstn

channel => 1

callerid=

group=

context=default

::: line="2 WCTDM/16/1 FXSKS"

signalling=fxs\_ks

callerid=asreceived

group=0

context=from-pstn

channel => 2

callerid=

group=

context=default

... ..

... ..

::: line="7 WCTDM/16/6 FXSKS (SWEC: MG2)"

signalling=fxs\_ks

callerid=asreceived

group=0

context=from-pstn

channel => 7

callerid=

group=

context=default

::: line="8 WCTDM/16/7 FXSKS (SWEC: MG2)"

signalling=fxs\_ks

callerid=asreceived

group=0

context=from-pstn

channel => 8

callerid=

group=

context=default

```
[root@localhost ~]# dahdi_cfg -vv
```

The right output of running dahdi\_cfg -vv will like the following:

```
DAHDI Tools Version - 2.4.1
```

```
DAHDI Version: 2.4.1.2
```

```
Echo Canceller(s): MG2
```

```
Configuration
```

```
=====  
Channel map:
```

```
Channel 01: FXS Kewlstart (Default) (Echo Canceler: mg2) (Slaves: 01)
```

```
Channel 02: FXS Kewlstart (Default) (Echo Canceler: mg2) (Slaves: 02)
```

```
... ..
```

```
... ..
```

```
Channel 07: FXS Kewlstart (Default) (Echo Canceler: mg2) (Slaves: 07)
```

```
Channel 08: FXS Kewlstart (Default) (Echo Canceler: mg2) (Slaves: 08)
```

8 channels to configure.

```
Setting echocan for channel 1 to mg2
```

```
Setting echocan for channel 2 to mg2
```

```
... ..
```

```
... ..
```

```
Setting echocan for channel 7 to mg2
```

```
Setting echocan for channel 8 to mg2
```

3. Please add the following line in the end of chan\_dahdi.conf file

```
#include dahdi-channels.conf
```

4. Please run asterisk with the following command:

```
asterisk -vvgc
```

```
reload
```

5. Please run dahdi show channels command

The right output should like the following:

| Chan | Extension | Context   | Language | MOH Interpret | Blocked | State      |
|------|-----------|-----------|----------|---------------|---------|------------|
|      | pseudo    | default   |          | default       |         | In Service |
|      | 1         | from-pstn |          | default       |         | In Service |
|      | 2         | from-pstn |          | default       |         | In Service |
|      | ...       | ...       |          |               |         |            |
|      | ...       | ...       |          |               |         |            |
|      | 7         | from-pstn |          | default       |         | In Service |
|      | 8         | from-pstn |          | default       |         | In Service |

## Chapter 5 Reference

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

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

[http://www.openippbx.org/index.php?title=Main\\_Page](http://www.openippbx.org/index.php?title=Main_Page)

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