Synway

Synway AST Series

CDC-1522A/PCI
CDC-2522A/PCI
CDC-3522A/PCI

Hardware Manual

Version 1.0

Synway Information Engineering Co., Ltd

www.synway.net

Contents

Copyright Declaration

Revision History

Version	Date	Comments
Version 1.0	2009-2	Initial publication.

Note: Only major revisions to this manual itself recorded herein.

Chapter 1 Overview

The Synway CDC Series (hereinafter referred to as 'CDC') are multi-channel codec boards with PCI 2.2 bus, supporting the hardware-based transformations between voice codecs. In view of the board features and functionalities, the Synway CDC series board is a perfect substitute for the TC400B product from Digium Inc.

The Figure 1-1 shows the typical application of CDC Series boards.

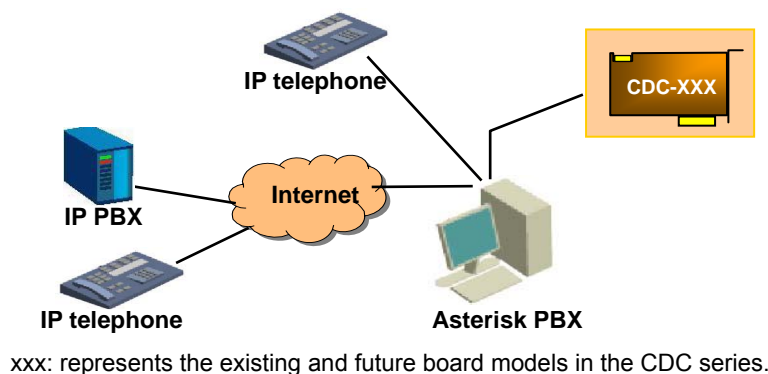xxx: represents the existing and future board models in the CDC series.

Figure 1-1 Typical Application

Now available models are CDC-1522A/PCI, CDC-2522A/PCI and CDC-3522A/PCI. The point of difference between them lies on how many voice channels are supported for encoding and decoding at the same time. To be exact, CDC-1522A/PCI supports simultaneous encoding and decoding on 50 voice channels; CDC-2522A/PCI supports that on 100 voice channels; and CDC-3522A/PCI supports that on 150 voice channels.

1.1 Features

- **PCI 2.2 Bus Support**

  Includes PCI 2.2 bus with burst data transmission rate up to 132 MB/s; PNP (plug and play) feature eliminates the need for jumper leads; the general PCI design supports 3.3V/5V PCI slot and PCI-X slot.

- **DMA Read and Write**

  The use of PCI-based DMA technique for data reading and writing helps minimize the cost of the host CPU.

- **Voice CODEC Support**

  Supports the codec translations among G.711 A-Law, μ-Law and G.729A in hardware.

- **Highly Efficient Real-time Voice Processing**

This board enables highly efficient voice processing and the multiple on-board DSPs give a nearly real-time voice effect.

- **Plentiful API Functions**

Fully compatible with the API functions of Asterisk.

Chapter 2 Installation

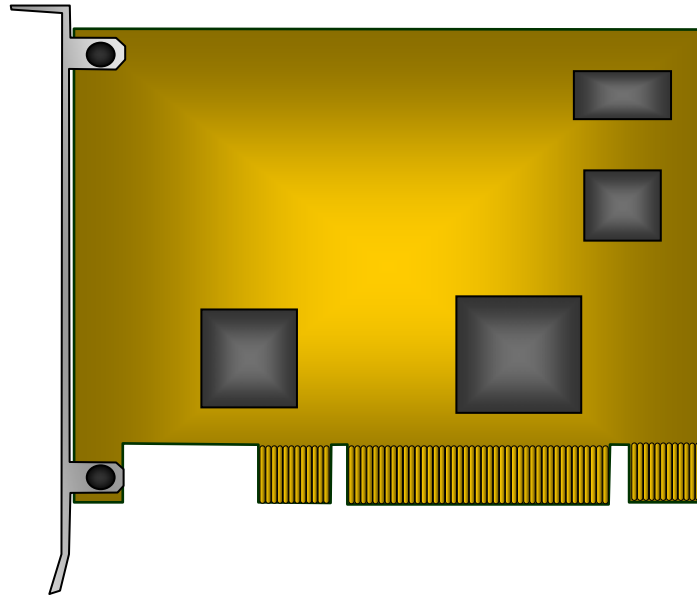## 2.1 Hardware Structure

- **CDC-1522A/PCI Board**

Figure 2-1 CDC-1522A/PCI (Front Views)

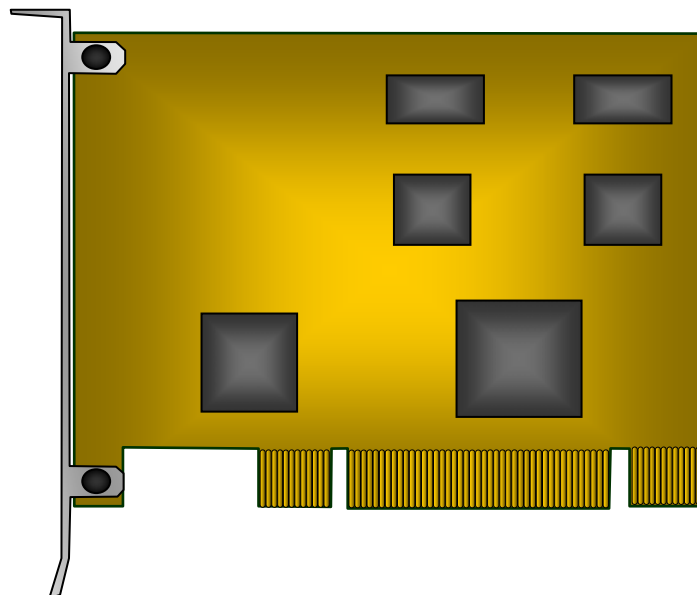- **CDC-2522A/PCI Board**

Figure 2-2 CDC-2522A/PCI (Front Views)

● **CDC-3522A/PCI Board**
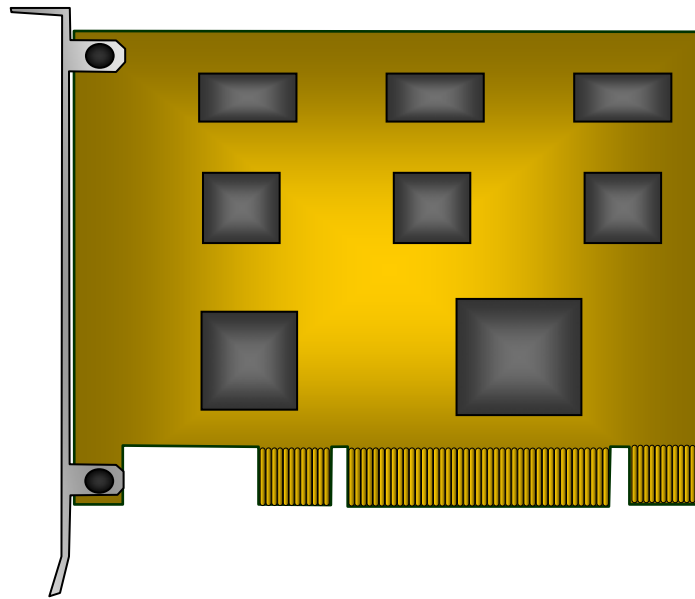
Figure 2-3 CDC-3522A/PCI (Front View)

2.2 System Requirements

Host System Requirements

     CPU: 400MHz Intel® Pentium®III or above

     Memory: 512M or more

     HD: Depends on individual requirements

Supported Operating Systems

     Linux RH7.2/RH9.0/AS4/FC4/SUSE10

2.3 Installation Procedure

Step 1：   Turn off the power and open the chassis.

Step 2：   Fit the board into a slot on the PC.

Step 3：   Close and seal the chassis.

Appendix A Technical Specifications

Dimensions

    120×95mm^2 (excluding L-bracket)

Weight

    ≈100g

Environment

    Operating temperature: 0℃—55℃

    Storage temperature: -20℃—85℃

    Humidity: 8%—90% non-condensing

    Storage humidity: 8%—90%
                       non-condensing

Audio Decoding

    From G.729A to A-Law，µ-Law

Audio Encoding

    From A-Law，µ-Law to G.729A

Power Requirements

    Maximum power consumption: ≤8W

Audio CODEC

    A-Law: 64kbps

    µ-Law: 64kbps

    G.729A: 8kbps

Appendix B Technical/Sales Support

Thank you for choosing Synway. Please contact us should you have any inquiry regarding our products. We shall do our best to help you. However, our technicians and salesmen are mainly responsible for maintaining our boards and providing relative technical support. If there are problems about Asterisk, please keep touch with Digium Inc. for help.

<u>Headquarters</u>

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