Synway AST Series

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

Hardware Manual

Version 1.0

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Contents

Copyright Declaration

Revision History

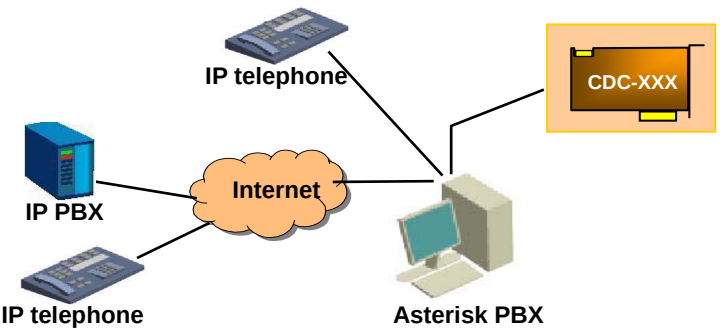
Version	Date	Comments
Version 1.0	2009-2	Initial publication.

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**

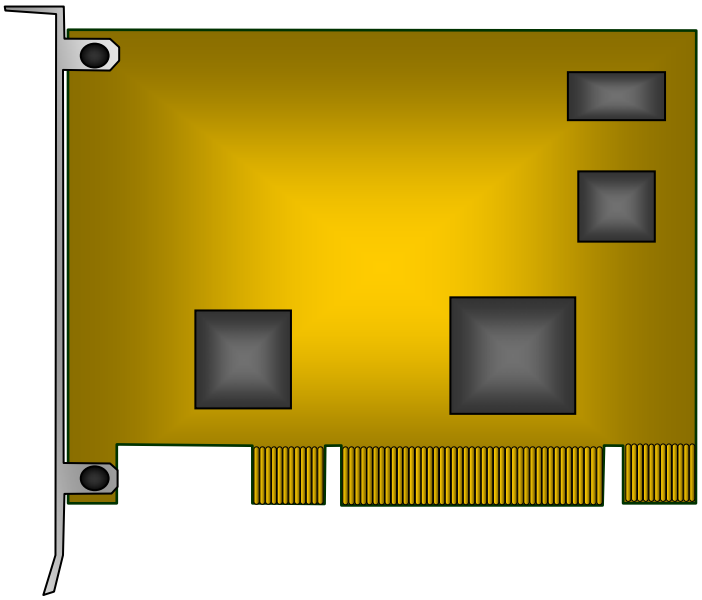


Figure 2-1 CDC-1522A/PCI (Front Views)

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

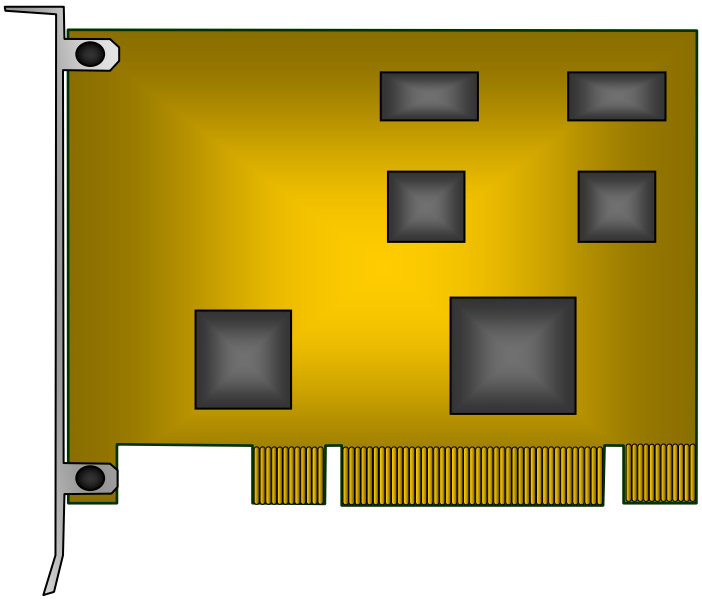


Figure 2-2 CDC-2522A/PCI (Front Views)

- **CDC-3522A/PCI Board**

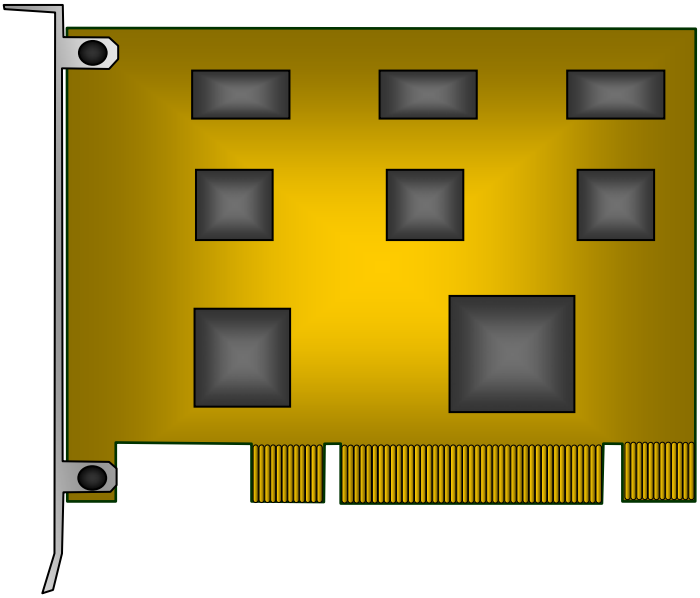


Figure 2-3 CDC-3522A/PCI (Front View)

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