Synway CTI Series

SHV-120A-CT/PCI
SHV-240A-CT/PCI

Voice-alteration Board

Hardware Manual

Version 1.0

Synway Information Engineering Co., Ltd

www.synway.net

Contents

Copyright Declaration

Revision History

Version	Date	Comments
Version 1.0	2006-3	Initial publication

Note: Please visit our website http://www.synway.net to obtain the latest version of this document.

Chapter 1 Overview

The Synway CTI series SHV-120A-CT/PCI and SHV-240A-CT/PCI are the high-density voice-alteration boards with PCI bus, widely used in value-added telecom services, such as color talk, magic talk, etc.

1.1 Functions

- Supports super voice alteration: up to 150 voice alteration effects available to meet different customer requirements

- All voice-alteration channels are independent to each other: each allowed to be set separately with a particular voice-alteration effect

- Includes PCI bus, support of the PNP (plug and play) feature

- Includes CT-BUS, offering the great between-board TDM capability

1.2 Features

- **Large-capacity & High-density**

  A single board supports up to 120/240 voice-alteration channels, which establishes the technical basis for the construction of a large-capacity platform.

- **Use of DSP Arrays & Low System Cost**

  The core voice-alteration algorithm is implemented by using DSP arrays, which minimizes the cost of system resources and improves the system stability and reliability.

- **Synway's Unified SynCTI Driver Development Platform**

  Used with other series of voice boards from Synway, effectively reducing the development cost and greatly increasing the system stability.

- **Supports Interconnectivity with Other Boards**

  Using the low-level API functions provided by Synway, the third party boards can easily access the voice-alteration resources through the between-board TDM bus.

- **Available Serial Number & Authorization Code Identification Circuit**

  Each board has a unique hardware serial number and an on-board authorization code identification circuit. Users can ask the manufacturer to set a unique authorization code for them to prevent piracy.
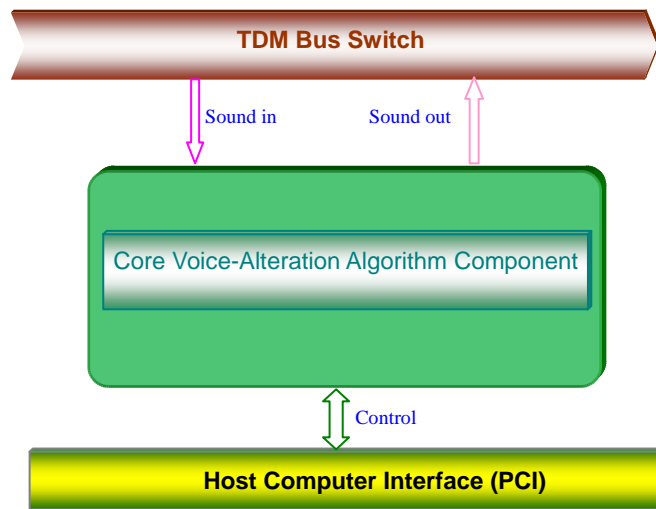
1.3 Operation Principle

Figure 1-1 Operation Principle

Chapter 2 Installation

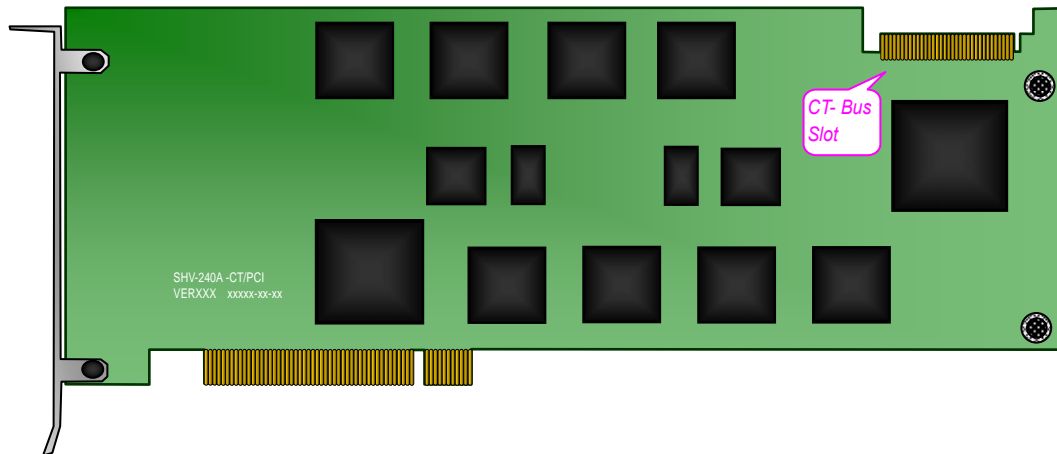## 2.1 Hardware Structure

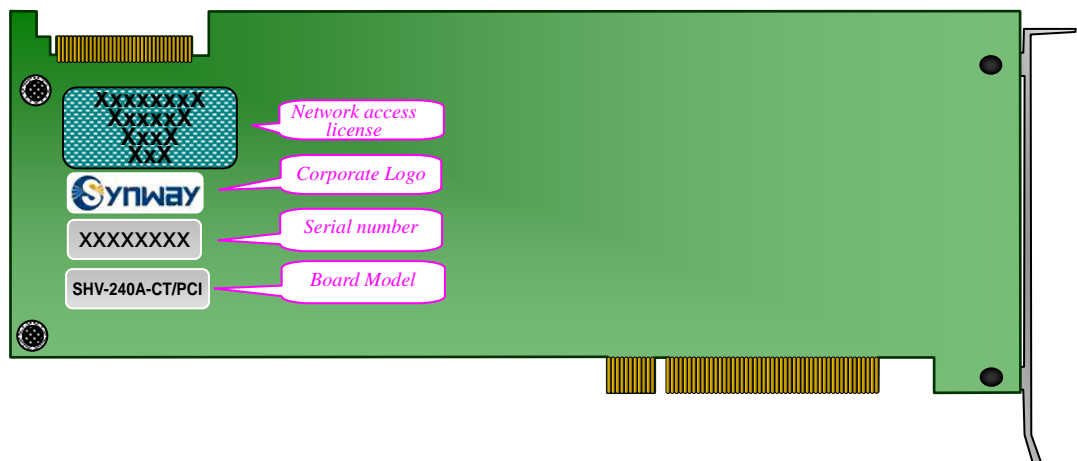● **SHV-240A-CT/PCI board**

Figure 2-1 Front Side View

Figure 2-2 Reverse Side View

Note: This file only illustrates the SHV-240A-CT/PCI board with the above figures, but is also applicable to the SHV-120A-CT/PCI board which has the similar hardware structure. Always check the label on the board to get the board model before your use.

2.2 System Requirements

Host System Requirements

CPU: 300MHz Intel® Pentium®Ⅱ or above

Memory: Each board needs at least 1 MByte RAM

HD: At least 1 Gbyte free space

Interface: Each board requires a PCI slot

Supported Operating Systems

Refer to *SynCTI Programmer's Manual.pdf*.

2.3 Installation Procedure

Step 1: Install the board

Choose a proper PCI slot and fit the board into the PC chassis.

Notes:

① As strong static electricity may lead to damages on both the board and the PC, the operator should discharge the static electricity on him before inserting the board.

② Keep away from the electricity during this step for the safety of both the device and the operator.

Step 2: Connect CT-BUS

Because this board must be used with other boards, CT-BUS connection is an indispensable step for data exchange between multiple boards. See Figure 2-3 for correct insertion. Do not twist or insert in the opposite direction.
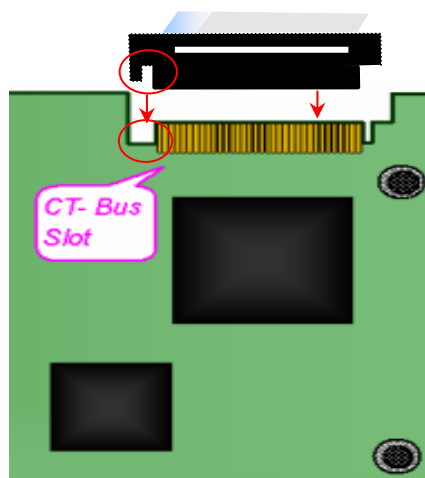

Figure 2-3 Connection of CT-Bus

Step 3: Install the driver

If it's the first time for you to use the board on your PC, please install the driver by yourself;

otherwise, the driver will be installed by the operating system automatically. Regarding driver installation, refer to *SynCti_InstManual.pdf*.

Key Tips:

- As the system is expected to run for long hours unmannedly, 'energy-saving' mode should be turned off for both the CPU and the HD in CMOS or WINDOWS operating system. This is to ensure full-speed operation of the computer, or it may lead to a drop in performance or unexpected errors after running for some time.

- A chassis installed with the SHV-120A-CT/PCI or SHV-240A-CT/PCI board must be grounded for safety reasons, according to standard industry requirements. A simple way is earthing with the third pin on the plug. No or improper grounding may cause instability in operation as well as decrease in lightning resistance.

Appendix A Technical Specifications

Dimensions

310×115mm^2 (excluding L-bracket)

Weight

≈ 250g

PCI Bus Standard

PCI2.1

CT-BUS Standard

H.100, compatible with MVIP, SC and ST bus

Number of Channels

120 or 240

Adjustment Range

70—220, 128 set as the original voice

Adjustment Step Value

1

Voice Delay

15ms—24ms

Environment

Operating temperature: 0℃—55℃

Storage temperature: -20℃—85℃

Humidity: 8%—80% non-condensing

Power Requirements

+5V DC: ≤1.2A

Maximum power consumption: ≤6W

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.

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