Synway CTI Series

SHT-8B/PCI
SHT-8B/PCI/FAX
SHT-16B-CT/PCI
SHT-16B-CT/PCI/FAX

Analog Voice Board

Product Introduction

Synway Information Engineering Co., Ltd

www.synway.net

Functions

- Supports ring detection for external calls

- Station phones on-hook/off-hook detection

- Direct connection between trunk and station keeps call uninterrupted during power outage

- All voice channels can be used for faxing.

- Calling party info (Caller ID) transmission/detection, DTMF and FSK support

- Activity/silence detection

- Automatic Gain Control (AGC) support in recording operation

- DTMF transmission and detection

- Automatic line voltage detection

- Automatically checks board to determine the number and type of modules on the board

Characteristic Features

- **PCI 2.1 Bus Support**

  Includes PCI 2.1 bus with burst data transmission rate up to 133 MB/s; PNP (plug and play) feature eliminates the need for jumper leads.

- **On-board SIMM Slots**

  Fit modules to board. Contacts on both sides of the SIMM slots greatly improve connection and ease installation.

- **Module Configurable**

  4 or 8 on-board dual channel modules can be freely arranged in pairs or groups for various complex, multi-functional applications, such as call center and recording functions available on a single board.

- **Available Analog Telephone Line Interface**

  The available RJ11 jacks on the SHT-8B/PCI and SHT-8B/PCI/FAX boards can be directly connected to phone lines, making connection easy and malfunctions rare.

- **Available RJ45 Jack**

A single SHT-16B-CT/PCI or SHT-16B-CT/PCI/FAX board has four 8-pin RJ45 jacks, each of which can be converted into four 2-pin RJ11 jacks via a 4-way hub, making connection easy and malfunctions rare.

- **Teleconferencing**

The flexible distributed conferencing system sets no limit on the number of simultaneous conferences and participants in each conference, allows monitoring and recording of the whole conference and each individual speaker.

- **External Ringing Current & Battery Feed Power Supply**

Provides station modules with battery feed, and enables the phones which are linked to station channels to ring.

- **Programmable Tone Detector**

Detects single or dual tones at any frequency, offering facility for use with a variety of switches and enterprise phone systems.

- **Professional Driver Algorithm**

Uses SPECDial - a professional driver algorithm - to perform a complete automatic dial process through analog lines, accurately identifies called-party statuses and precisely distinguishes an answering machine from a fax machine that is responding at the remote end.

- **Echo Cancellation**

The self-adaptive echo cancellation feature effectively eliminates echoes under various conditions, which cancels out the effect of voice playback on DTMF and busy tones detection, avoids self-excited oscillation and howling, and minimizes the possibility of registering wrong DTMF and busy tones in a conference call.

- **Various CODECs Support**

Offers a large selection of voice CODECs, including hardware-based A-law (G.711), µ-law, IMA-ADPCM, software-based 16-bit linear PCM, MP3 and VOX.

- **Supports WAV File**

The recorded speech files can be edited and played by audio tools such as Cooledit.

- **Audio Output Interface**

The first channel on the board equipped with a tone amplifier circuit can directly connect to the headset or sound box, and play voices to a particular channel via a simple function call.

- **Board & Between-board TDM Capability**

The SHT-16B-CT/PCI and SHT-16B-CT/PCI/FAX boards include H.100 bus, facilitating

smooth connectivity to third-party boards with H.100 bus for the transfer of acquired voice signals to other devices.

The SHT-8B/PCI and SHT-8B/PCI/FAX boards are capable of on-board TDM.

- **Unique Hardware Serial Number**

Each board has a unique hardware serial number written in the firmware to distinguish itself from other boards and prevent piracy. The number is available via an easy function call with applications.
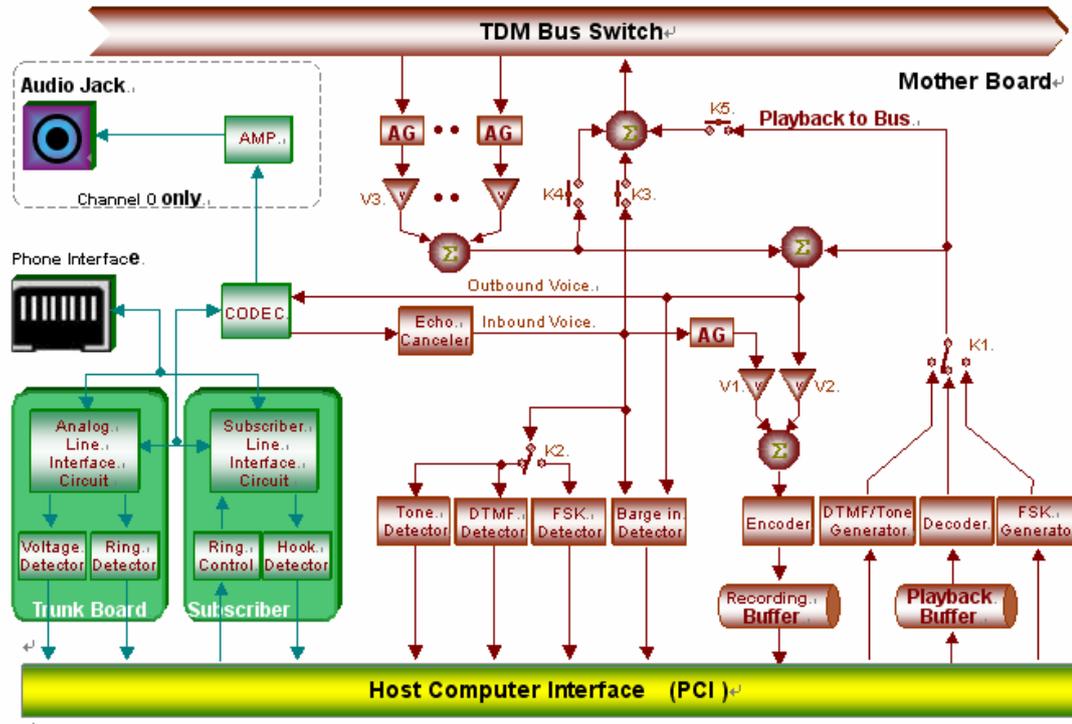
- **Authorized Code Identification Circuit**

The on-board authorized code identification circuit is designed for software safety. Users can apply to our company for the authorized code.

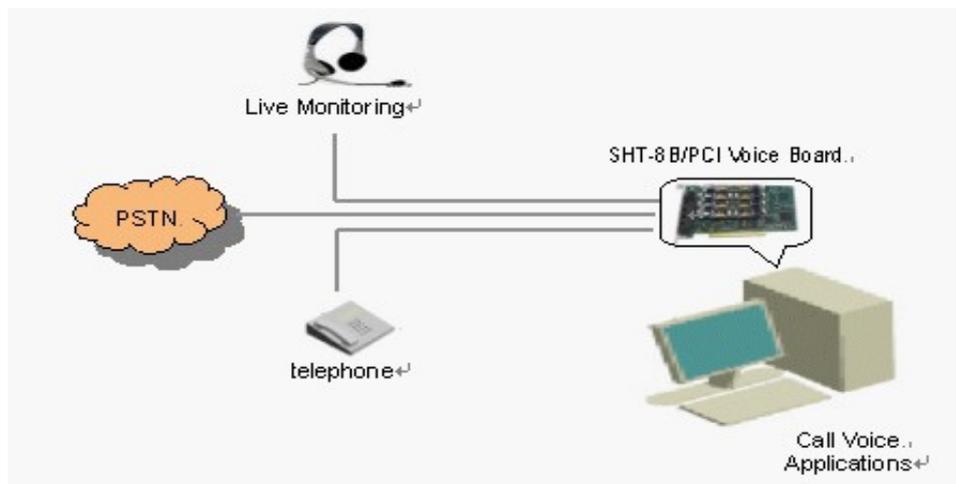- **Synway's Unified SynCTI Driver Development Platform**

Synway owns the intellectual property rights for the unified high-intelligence SynCTI driver development platform. Each system supports up to 2048 channels. Functions such as the detection and analysis of rings, tones and Caller IDs, are available via simple function calls on the driver platform, without having to understand complex call procedures.

⯈ Operation Principle

Notes: Channel 0 mentioned in this figure corresponds to Channel 1 marked on the board.

⯈ Typical Application

➤ Technical Specifications

Dimensions

8B: 170×115mm² （excluding L-bracket）

16B: 310×115mm² （excluding L-bracket）

Weight

8B: ≈ 250g

16B: ≈ 400g

Environment

Operating temperature: 0℃—55℃

Storage temperature: -20℃—85℃

Humidity: 8%— 90% non-condensing

Storage humidity: 8%— 90% non-condensing

Input/output Interface

Headset jack: One φ3.5 stereo jack

Telephone line jack: Four 4-pin RJ11 jacks (8B)

Telephone line jack: Four 8-pin RJ45 jacks (16B)

Audio Specifications

Codec: CCITT A/μ-Law　64kbps,

　　　IMA ADPCM　32kbps

Output power: ≥50mW

Distortion: ≤3%

Frequency response: 300-3400Hz(±3dB)

Signal-to-noise ratio: ≥38 dB

Echo suppression: ≥40 dB

Maximum System Capacity

Up to 10 8B/16B boards concurrently per system; up to 8/16 channels per board

Power Requirements

+5V DC: 600mA

-12V DC: 80mA

+12V DC: 300mA

Maximum power consumption: ≤12W (PC power supply only)

Impedance

Input impedance: ≥1MΩ/500V DC；

　　　　　　　≥10kΩ/1000V AC

Insulation resistance for PC isolation from telephone line: ≥2MΩ/500V DC

Telephone line impedance: Compliant with the national standard impedance for three-component network

Audio Encoding & Decoding

16Bit PCM	128kbps
8Bit PCM	64kbps
A-Law	64kbps
μ-Law	64kbps
VOX	32kbps
ADPCM	32kbps
GSM	13.6kbps
MP3	8kbps

Sampling Rate

8kHz

Safety

Lightning Resistance: Level 4

Certification: FCC; CE; CCC

Purchasing Guide

The Synway CTI Series 8B/16B voice boards provide a complete range of features to meet all requirements.

➢ Model Description

Model	PC Bus	Voice Channels	Voltage Detection	Audio Jack	Conferencing	Faxing	Board TDM	Between-board TDM
SHT-8B/PCI	PCI	8	√	√	√	—	√	—
SHT-8B/PCI/FAX	PCI	8	√	√	√	√	√	—
SHT-16B/PCI	PCI	16	√	√	√	—	√	√
SHT-16B-CT/PCI/FAX	PCI	16	√	√	√	√	√	√

Technical/sales Support

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TIPS

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