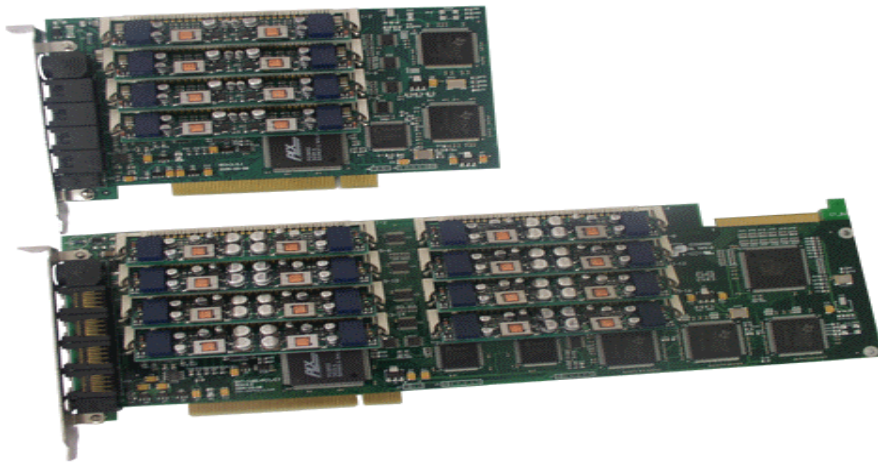




**SHT-8B/PCI**  
**SHT-8B/PCI/FAX**  
**SHT-16B-CT/PCI**  
**SHT-16B-CT/PCI/FAX**

# **Product Introduction**



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## ➤ 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**

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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),  $\mu$ -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

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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.

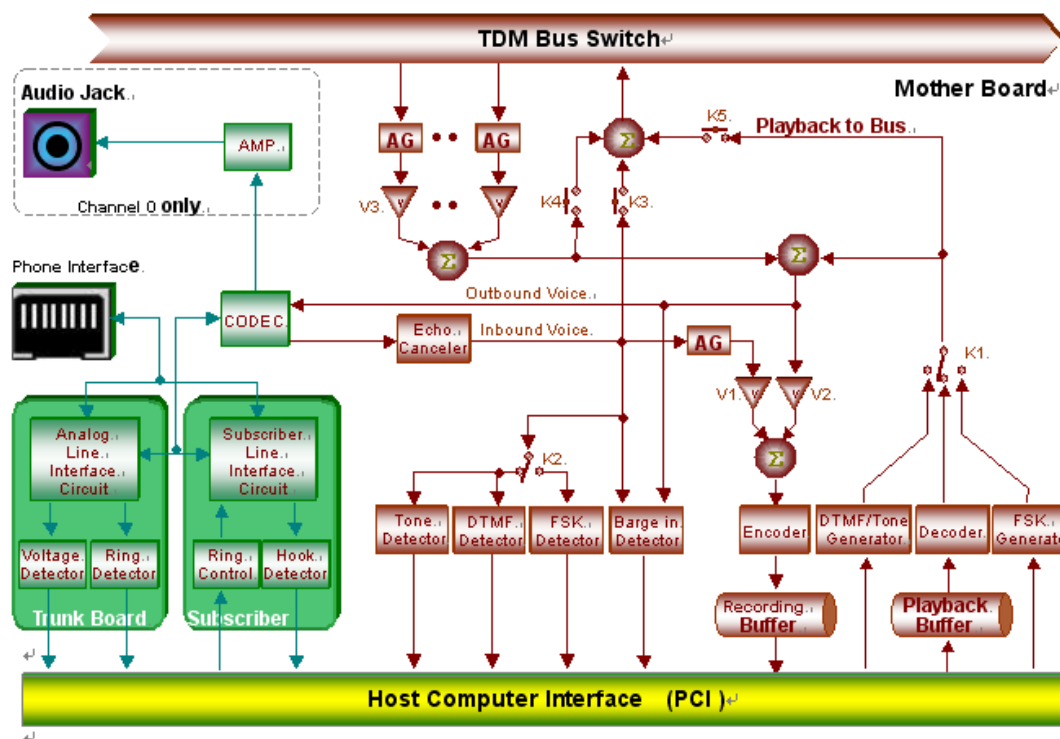
- **Authorized Code Identification Circuit**

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 SHCTI Driver Development Platform**

Synway owns the intellectual property rights for the unified high-intelligence ShCti 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



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# ➤ Technical Specifications

## Dimensions

8B:  $170 \times 115 \text{mm}^2$  (excluding L-bracket)

16B:  $310 \times 115 \text{mm}^2$  (excluding L-bracket)

## Weight

8B:  $\approx 250\text{g}$

16B:  $\approx 400\text{g}$

## Environment

Operating temperature:  $0\text{ }^\circ\text{C} - 55\text{ }^\circ\text{C}$

Storage temperature:  $-20\text{ }^\circ\text{C} - 85\text{ }^\circ\text{C}$

Humidity: 8% — 90% non-condensing

Storage humidity: 8% — 90% non-condensing

## Input/output Interface

Headset jack: One  $\phi 3.5$  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/  $\mu$  law 64Kbps,

IMA ADPCM 32Kbps

Output power:  $\geq 50\text{mW}$

Distortion:  $\leq 3\%$

Frequency response:  $300 - 3400\text{Hz} (\pm 3\text{dB})$

Signal-to-noise ratio:  $\geq 38\text{ dB}$

Echo suppression:  $\geq 40\text{ dB}$

## Maximum System Capacity

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

up to 8/16 channels per board

## Power Requirements

+5V DC: 600mA

-12 VDC: 80mA

+12 VDC: 300mA

Maximum power consumption:  $\leq 12\text{W}$  (PC power supply only)

## Impedance

Input impedance:  $\geq 1\text{M } \Omega / 500\text{V DC}$ ;

$\geq 10\text{K } \Omega / 1000\text{V AC}$

Insulation resistance for PC isolation from telephone line:  $\geq 2\text{M } \Omega / 500\text{V DC}$

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

$\mu$ -Law 64Kbps

VOX 32Kbps

ADPCM 32Kbps

GSM 13.6Kbps

MP3 8Kbps

## Sampling Rate

8K Hz

## Safety

Lightning Resistance: Level 4

Certification: FCC; CE; CCC

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## ➤ 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

### Contact Details

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## **TIPS**

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  -  Product specifications and relevant data are subject to conditions on the purchase contract.
  -  Our company reserves the right to modify this document without prior notice and the right for final explanation.
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