Synway ATP Series

SHT-16B-CT/cPCI 2.0
SHT-16B-CT/cPCI/MP3 2.0

Analog Tap Passive Board

Product Introduction

Synway Information Engineering Co., Ltd

www.synway.net

Functions

- High-impedance connection ensures no interruption of data transmission on the monitored line

- A variety of ways to start/stop recording

- Supports simultaneous recording on 16 channels, each with a different format

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

- DTMF digits detection

- Programmable tone analyzer detects all kinds of tones

- Activity/silence detection

- Automatic Gain Control (AGC) support in recording operation

- Call progress monitoring

- Automatic line voltage detection

- Automatically checks board to see if recording modules are correctly inserted

Characteristic Features

- **CompactPCI 2.1 Bus Support**

  Includes CompactPCI 2.1 bus with burst data transmission rate up to 133 MB/s; PNP (plug and play) feature eliminates the need for jumper leads; supports hot swap while running the application software (most advanced hot-swap operation for CompactPCI system).

- **Connects via Rear Connection Panel**

  The use of the rear connection panel for connection eliminates the need for reconnection upon changing the board, which facilitates system development and debugging, and enhances runtime stability.

- **Module Configurable**

  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.

- **On-board SIMM Slots**

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

- **RJ11 and DB44 Connectors Available**

  A rear connection panel has eight 4-pin RJ11 jacks and a 16-way DB44 connector which can be directly connected to phone lines via a proper arrangement of lines and cables, making connection easy and malfunctions rare.

- **2 to 16 Port Hi-Z Monitoring of Analog Lines**

  Flexible positioning of the access point on the communication line between Central Office Terminal (COT) and PBX, COT and telephones, PBX and telephones, etc. allows monitoring of any analog tone signal such as tone signals from radio stations. This function is widely used in small-to-large capacity call recording systems, call centers and microphone recording systems.

- **Programmable Tone Detector**

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

- **High-impedance Recording**

  The recording impedance is up to 10KΩAC/2MΩDC, ruling out interruption on transmission of monitored signals.

- **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 analog tone amplifier circuit equipped on the first channel and the audio output jack on the rear connection panel allow the board to connect directly with the headset or sound box, and monitor a specific channel in real time via a simple function call.

- **TDM Capability**

  The use of the on-board H.110 bus in a CompactPCI chassis facilitates smooth connectivity to third-party boards with H.110 bus for the transfer of acquired voice signals to other devices.

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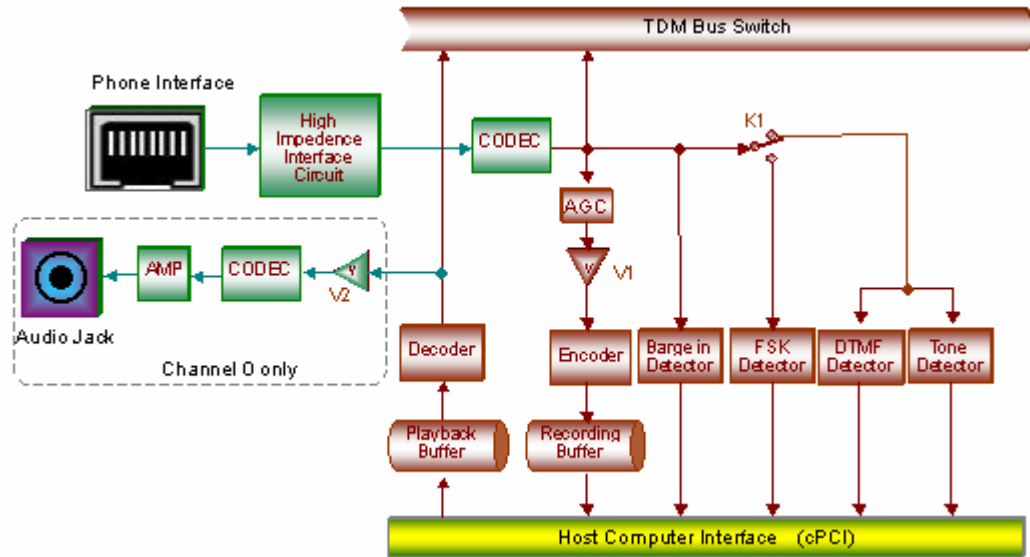
Notes: Channel 0 mentioned in this figure corresponds to Channel 1 marked on the board.

Typical Application
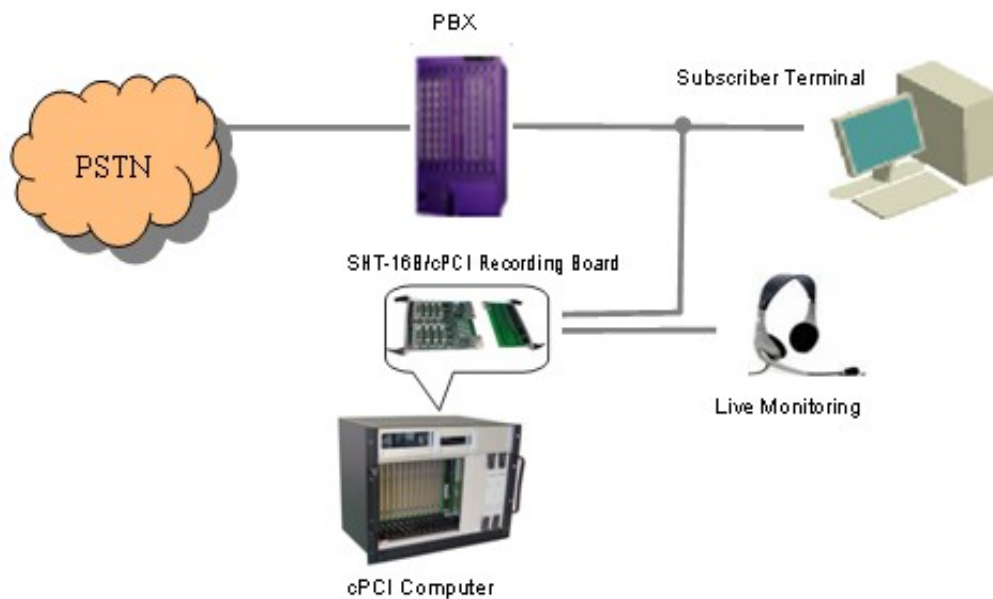
➤ Technical Specifications

Dimensions

Board: $230 \times 163mm^2$ (excluding handles)

Rear connection panel: $230 \times 82mm^2$
 (excluding handles)

Weight

Board: ≈500g (including 8 dual channel modules)

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: Eight 4-pin RJ11 jacks; DB44

Audio Specifications

CODEC: CCITT A/μ-Law   64kbps,

    IMA ADPCM   32kbps

Output power: ≥50mW

Distortion: ≤2%

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

Signal-to-noise ratio: ≥38dB

Echo suppression: ≥40dB

Maximum System Capacity

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

Power Requirements

+5V DC: 600mA

-12V DC: 80mA

+12V DC: 300mA

Maximum power consumption: ≤12W

Impedance

Input impedance: ≥1MΩ/500V DC;

    ≥10kΩ/1000V AC

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

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 ATP Series provides a complete range of features to meet all requirements.

➢ **Model Description**

Model	PC Bus	Voice Channel	Voltage Detection	Audio Jack	Conferencing	Tone Detection	DTMF Detection	On-board Exchange Bus	CT Bus	Hardware-based MP3 CODEC
SHT-16B-CT/cPCI	cPCI	16	√	√	√	√	√	√	H.110	_
SHT-16B-CT/cPCI/MP3	cPCI	16	√	√	√	√	√	√	H.110	√

Technical/sales Support

Headquarters

Synway Information Engineering Co., Ltd

http://www.synway.net/

9F, Synway D&R Center, No.3756, Nanhuan Road, Binjiang District, Hangzhou, P.R.China, 310053

Tel: +86-571-88860561

Fax: +86-571-88850923

Technical Support

Tel: +86-571-88864579

Mobile: +86-13735549651

Email: techsupport@sanhuid.com

Email: techsupport@synway.net

MSN: scycindy_sh@hotmail.com

Sales Department

Tel: +86-571-88860561

Tel: +86-571-88864579

Fax: +86-571-88850923

Email: sales@synway.net

TIPS

- All the content and data herein have been scrupulously checked. However, we do not guarantee the absence of errors.

- 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.