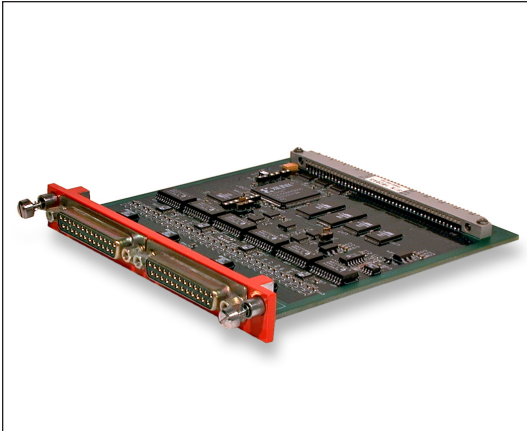


## 2-Channel Serial PCM Input Card with Bit Synchronizer



### Applications

- Integrate PCM Encoders from Different Vendors
- Integrate Low Rate and High Rate Systems
- Convert any IRIG-106-01 Code to NRZ-L/RNRZ-L and Clock

### Features

- 2 Channel Serial PCM Multiplexer/Encoder
- Accepts Two IRIG-106-96 Serial Data Streams
- FIFO Based Architecture
- Encodes Data as an “Asynchronous Embedded Format”
- Uses “EMPTY” Flags to Support Data Recovery
- Accepts NRZ-L/RNRZ-L Data and Bit Clock from RS-422, TTL Inputs, or Internal Bit Sync
- Independent Bit Sync compatible with EDAU/CDAU-20XX Product Families
- Bit rates up to 10 Mbps, NRZ Codes
- Single Ended Analog or RS-422 differential Inputs
- Accepts all IRIG-106 PCM Codes as Input
- Provides NRZ-L Output Data with Coherent Clock
- RS-422 and TTL Outputs
- Onboard Bit Error Rate Detector and Test Data Simulator
- Windows 95/98/NT/2000 Software Included
- General Purpose PCM Bit Synchronizer

### Description

The SDI-102B is a 2-channel Serial Data Input Card with an independent single channel Bit Synchronizer for use in TTC’s EDAU-20XX or CDAU-20XX series products. The card can be used to integrate PCM Encoders from different vendors with the TTC EDAU/CDAU product lines. Each channel accepts either single-ended or RS-422 differential inputs (data and clock) at standard rates up to 2 Mbps on a per-channel basis. Channel 1 can also select the internally connected output of the Bit Sync. as data input. All incoming data is FIFO buffered on the card and is selectable by the user for transmission in the PCM output format as “Class I PCM” (standard fixed-position). The embedded PCM data’s format is not synchronized with the EDAU/CDAU PCM format.

The Bit Synchronizer provides full featured clock reconstruction, data recovery and code conversion, processing PCM inputs at rates of up to 10 Mbps for NRZ codes and up to 5 Mbps for BiØ codes. Data input amplitudes from 0.1 to 5.0 Volts p-p are accepted. The input impedance is programmable to 50Ω, 75Ω or 10kΩ. TTL and RS-422 compatible PCM data and 0° clock outputs are provided to drive modules requiring serial data and clock inputs. The output is also internally connected as an input to channel 1 of the Multiplexer/Encoder. A Bit Error Rate (BER) measurement capability with an on card Test Data Simulator is also provided.

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### SDI-102B Datasheet

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