

## 24-Bit Isolated Digital Input Card



### Applications

- Flight test instrumentation
- Factory automation and process control
- Research measurements and experiments

### Features

- 24-bit parallel digital input
- 24 channels per card
- 1,000 VDC galvanic isolation, bit to bit and bits to system ground
- Input sample rate to 20K samples/sec
- Programmable input trigger modes
  - Sample based on PCM format
  - Sample based on external trigger
  - Group sample based on external trigger
- Timestamp (delta time)
  - From bit "1" edge to format sample
  - Prog 1,10,100, or 1000 uS resolution
- Current/voltage differential inputs
- Inputs can be configured for 5V or 3.3V TTL compatibility
- Inputs reverse voltage protected
- $\pm 60$ VDC overvoltage protection
- Microsoft Windows application software included

### Description

The BLS-124A is an isolated 24-bit digital input plug-in card for use in TTC's CDAU/EDAU/WDAU-2000 products. The card provides a 24-bit digital input value for transmission in the system PCM output format and is intended for applications with multiple on/off signals requiring galvanic isolation of up to 1,000 VDC, from bit to bit and/or from all bits to system ground. All inputs are differential via high-speed opto-isolators requiring only 2.2mA of LED current for a logic 1 state. When the + side of an input is connected to the +3.3V or +5V supply rail, the - side may be driven directly by a TTL compatible output. In this configuration, the TTL output will nominally sink 3.9mA. Inputs are current limited to 3.9mA with reverse polarity and overvoltage protected to  $\pm 60$ VDC. The card has 2 data trigger/latch modes and the capability for timestamping discrete data inputs. These features result in a high performance discrete card for interfacing with a wide variety of digital subsystems.

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### BLS-124A Datasheet

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Teletronics Technology Corporation  
 15 Terry Drive, Newtown, PA 18940  
 phone: 267.352.2020 fax: 267.352.2021 Sales@ttcdas.com

[www.ttcdas.com](http://www.ttcdas.com)