TangentBlue I/O Modules

TB 3001/2001 cRIO/sbRIO Cradle Module

Features

Carrier for new cRIO module designs

- cRIO Interface
  - 2KB ID EEPROM
  - I/O Isolation
  - Sleep mode power down control
- Application daughterboard
  - Circuit designs up to 4.7cm x 3.3cm x 2.6mm (L x W x H)
  - Isolated cRIO signals
    - 7 FPGA Outputs – SPI_CK, SPI_CS*, DIO0, DIO1, DIO3, DIO4, DIO7
    - 2 FPGA Inputs – DIO2, DIO6
    - ID Select holdoff control
  - Isolated power: 100mA @ 3.3V
- Front panel
  - 24 user-defined IO (UDIO) lines
    - Schottky diode input protection
  - 8 User LEDs
- TB 2001: without module enclosure for sbRIO systems

Overview

The TB 3001/2001 Cradle Module is a carrier board that simplifies the design and prototyping of new cRIO modules. It provides common elements required by the cRIO specification and National Instruments' cRIO module development kit (MDK), allowing you to focus on the application-specific portion of the module design.

CompactRIO Interface

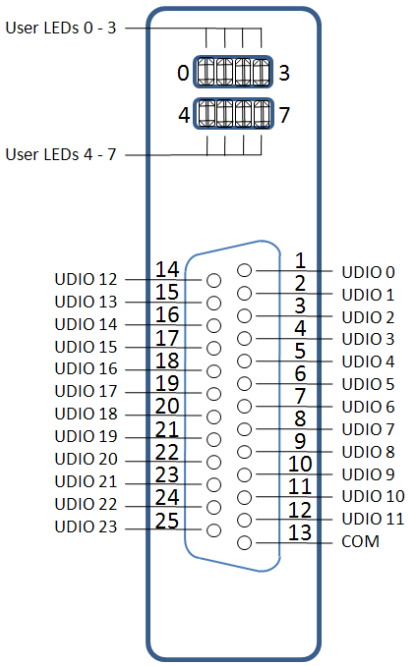
The TB 3001/2001 provides common cRIO design elements, including I/O isolation, Schmitt trigger buffering, ID EEPROM sleep power down control, and ID Select holdoff control.

Application Daughterboard

The TB 3001/2001 comes with daughterboard connectors that mate with your application-specific I/O circuit. The daughterboard is powered by a choice of 3.3V or 5V power rails supplied by the cradle board.

Front Panel

The DB-25 front panel connector provides connections for 24 user-defined signals. These signals and control lines for the eight front panel LEDs are routed to the application daughterboard, where their function is defined by your circuit design.



CUSTOMIZATION

Request a custom driver for your application.

DESIGN

Need an I/O module for National Instruments' cRIO, FlexRIO or R Series targets? Get TangentBlue to design it for you!

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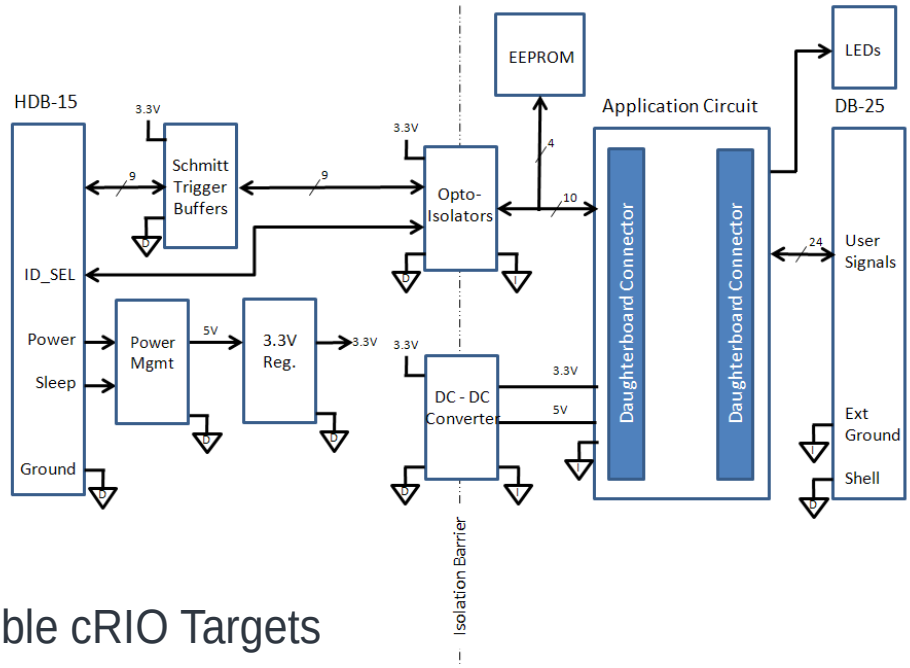

Compatible cRIO Targets

- NI 90xx CompactRIO (cRIO) controller + NI 91xx reconfigurable chassis
- NI 907x Integrated CompactRIO system
- NI 78xxR R Series + 9151R expansion chassis
- NI 96xx Single-Board RIO (sbRIO)

System Requirements

- Windows XP, Vista or Windows 7
- NI LabVIEW and LabVIEW FPGA for Windows version 8.6 or later
- NI cRIO-9951 Module Development Kit (MDK)

Specifications

- I/O Isolation: 2,500V
- Ambient temperature: cRIO: 0 - 45°C, sbRIO 0 - 70°C
- Humidity: 10 - 90%, non-condensing

Accessories (sold separately)

- Twisted pair ribbon cable assembly with DB-25 connector

AVAILABLE SERVICES

Phone Support

Driver Customization

New I/O Designs

Extended Warranty

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