DC369 Introduction

Description:

Demonstration Circuit DC369 demonstrates the LTC1646's ability to safely hot swap a CPCI bus requiring 5V and/or 3.3V supplies. The LTC1646 is able to power a wide range of capacitive loads in current limit and uses dual level circuit breakers to protect against overcurrent and short-circuit fault conditions. In addition, the LTC1646 biases bus I/O connector pins to 1V, monitors the state of the $5V_{OUT}$ and $3.3V_{OUT}$ supply voltages with the HEALTHY# signal and combines PCI_RST# with HEALTHY# on-chip to generate the LOCAL_PCI_RST# signal.

Quick Start Guide

Refer to Figure 1 for proper measurement equipment setup and follow the procedure outlined below:

1. Connect the 5V input power supply to the +5V and GND terminals on the System Backplane board.

2. Connect the 3.3V input power supply to the +3.3V and GND terminals on the System Backplane board.

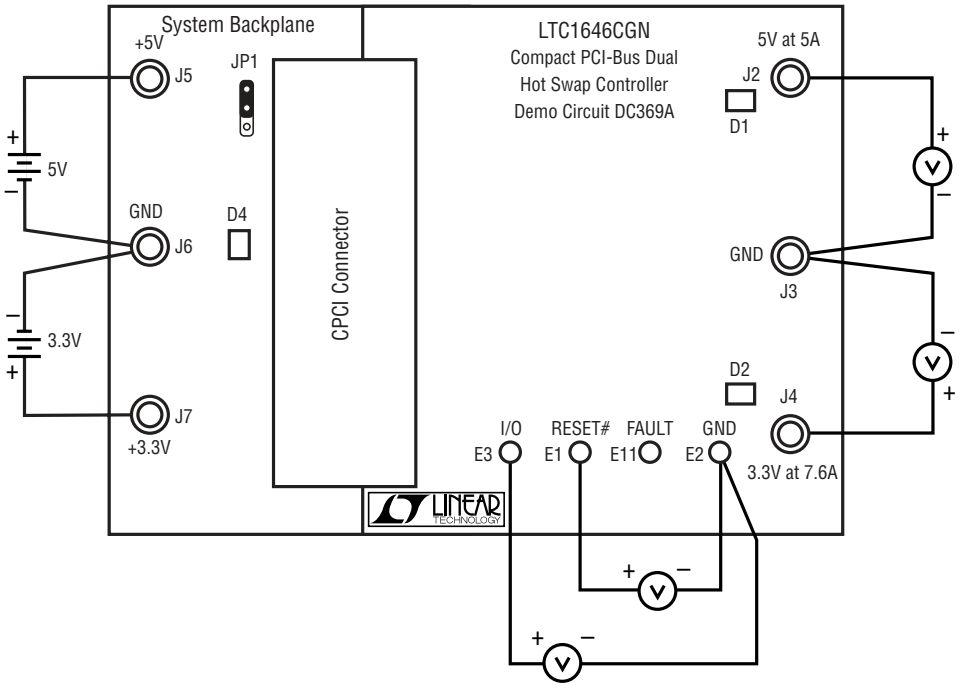

Figure 1. DC369A Test and Measurement Setup

3. Verify that the BD_SEL# jumper (JP1) is set to the GND position.

4. Enable the 5V and 3.3V supplies and insert the DC369 circuit card into the System Backplane connector.

5. Verify that the green HEALTHY# LED (D4), red 5V at 5A LED (D1), and red 3.3V at 7.6A LED (D2) are illuminated.

6. Connect a voltmeter across the I/O (E3) and GND (E2) terminals to measure the precharge output voltage.

7. Connect a voltmeter across the RESET# (E1) and GND (E2) terminals to measure the LOCAL_PCI_RESET# output voltage.

8. Connect a voltmeter across the 5V at 5A (J2) and GND (J3) connectors to measure the 5V output voltage.

9. Connect a voltmeter across the 3.3V at 7.6A (J4) and GND (J3) connectors to measure the 3.3V output voltage.