

QUICKEVAL PROCEDURE

Demonstration circuit 458 is configured to be a part of the LTC QuickEval™ system for quick and easy I²C™ control. The QuickEval software is downloaded from the Linear Technology website. After installing the software, it is always best to run the update periodically.

Connect the USB controller board, DC590A, to a computer and open the QuickEval software as shown in Figure 2. Through a 14-pin ribbon cable connect the DC458 to the controller board and the LTC4240 interface software will be brought up. Refer to Figure 3 for the following interface description.

1. An I²C address byte needs to be selected to match that of the LTC4240 so the host can communicate with it. Select a Write Address from the list or simply click on Find Address to cycle through the possible addresses for the LTC4240 and show which addresses responded with an acknowledge. If no address is found, the selected address will be set 00h. Check the connections and setup and try again.
2. The Command Byte field on the QuickEval Interface menu is the write register of the LTC4240. To set a bit to 1, select the appropriate box. For example, selecting C5 will only send data byte 20h. Then

checking C4 will send data byte 30h. Unchecking C5 will send data byte 10h.

3. The Status field displays the read register of the LTC4240. Click on Single Refresh to do a single read from the LTC4240, or check Continuous Read to poll the LTC4240 and uncheck to halt the poll. The poll is set to read every 500ms.
4. The Quick Read field shows the status of the Red Fault# LED and Green HEALTHY# LED. The Expansion Configuration is given by PRSNT1,2# bits. The FAULTCODE0,1 bits encode which supply has caused a fault.

Note: If the DC458 is disconnected or a communications error has occurred, the LTC4240 software will close and return to main QuickEval software.

Additional help is in the toolbar, which includes a link to the datasheet and this QuickStart guide.

Design files for this circuit board are available. Call the LTC factory.

This is a trademark of Linear Technology Corporation

QUICK START GUIDE FOR DEMONSTRATION CIRCUIT 458

I2C COMPACT PCI HOT SWAP CONTROLLER

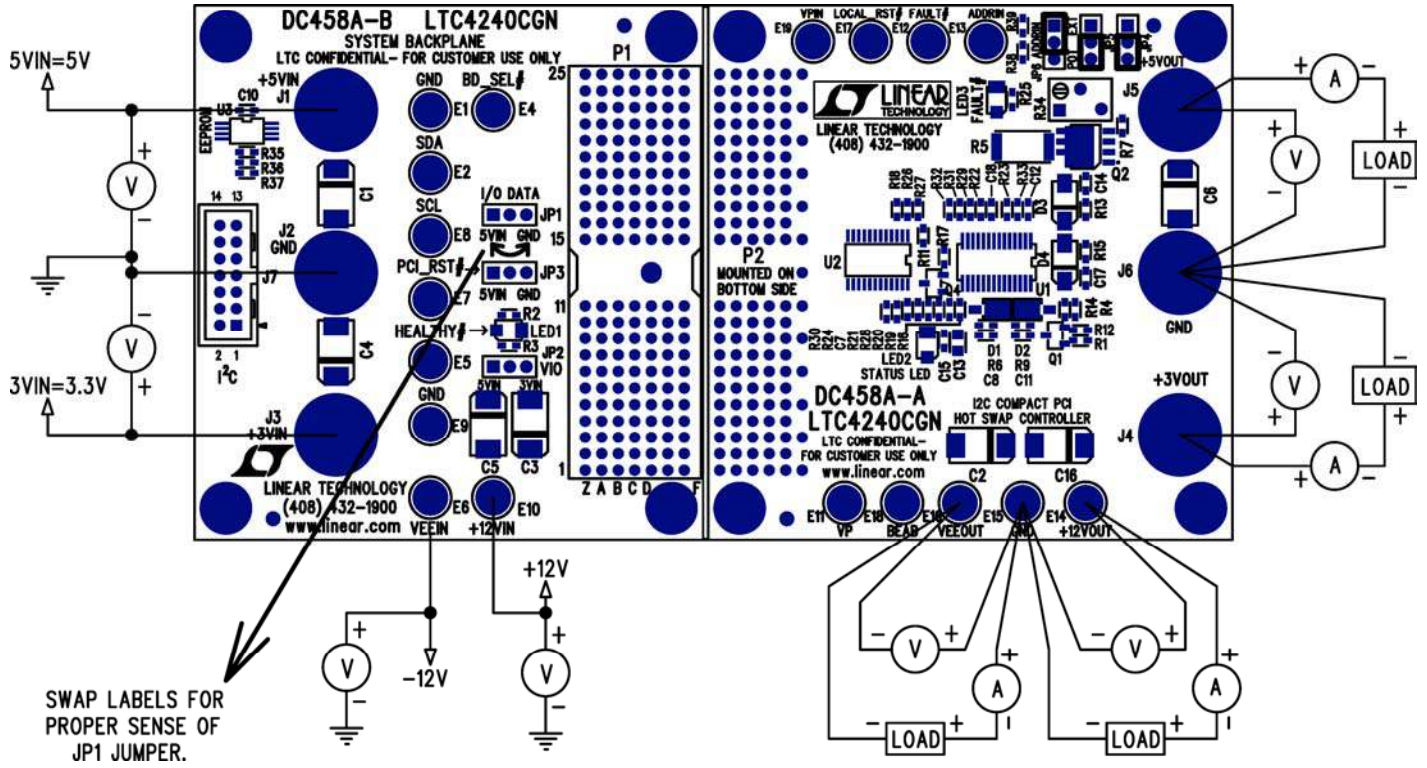


Figure 1. Proper Measurement Equipment Setup

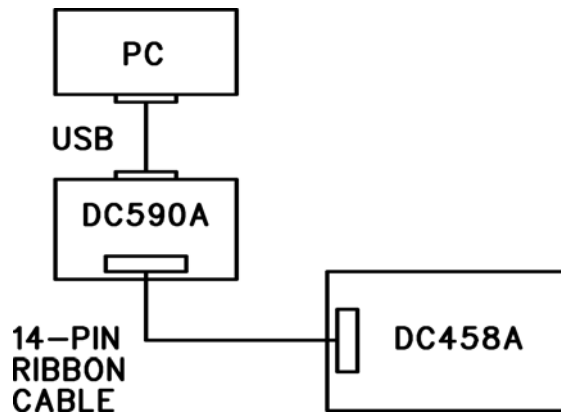


Figure 2. QuickEval Setup

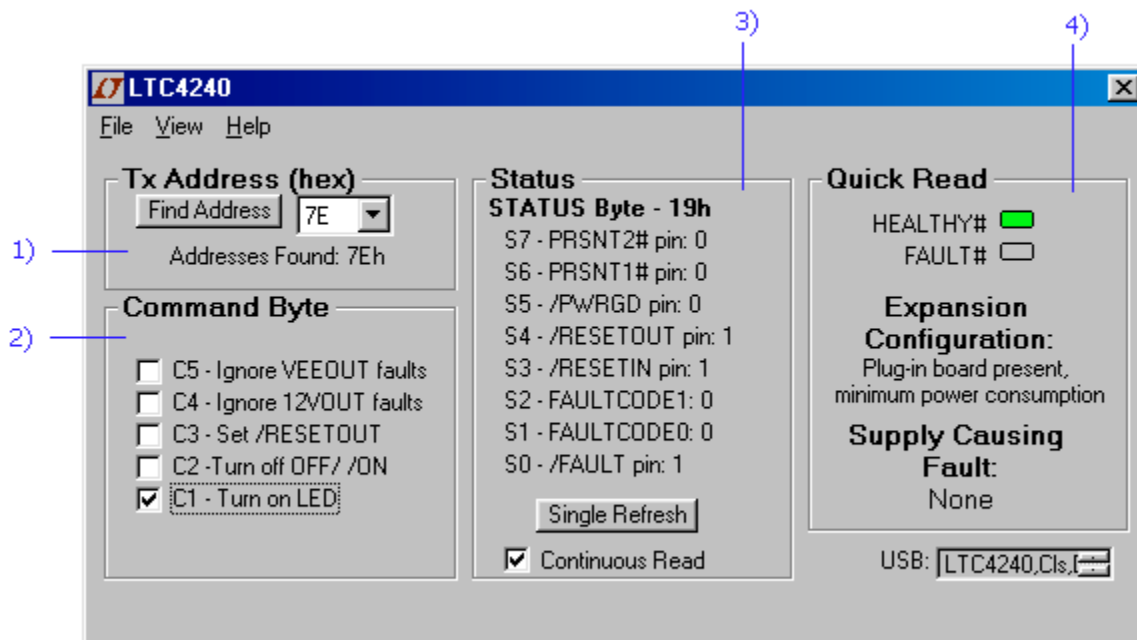
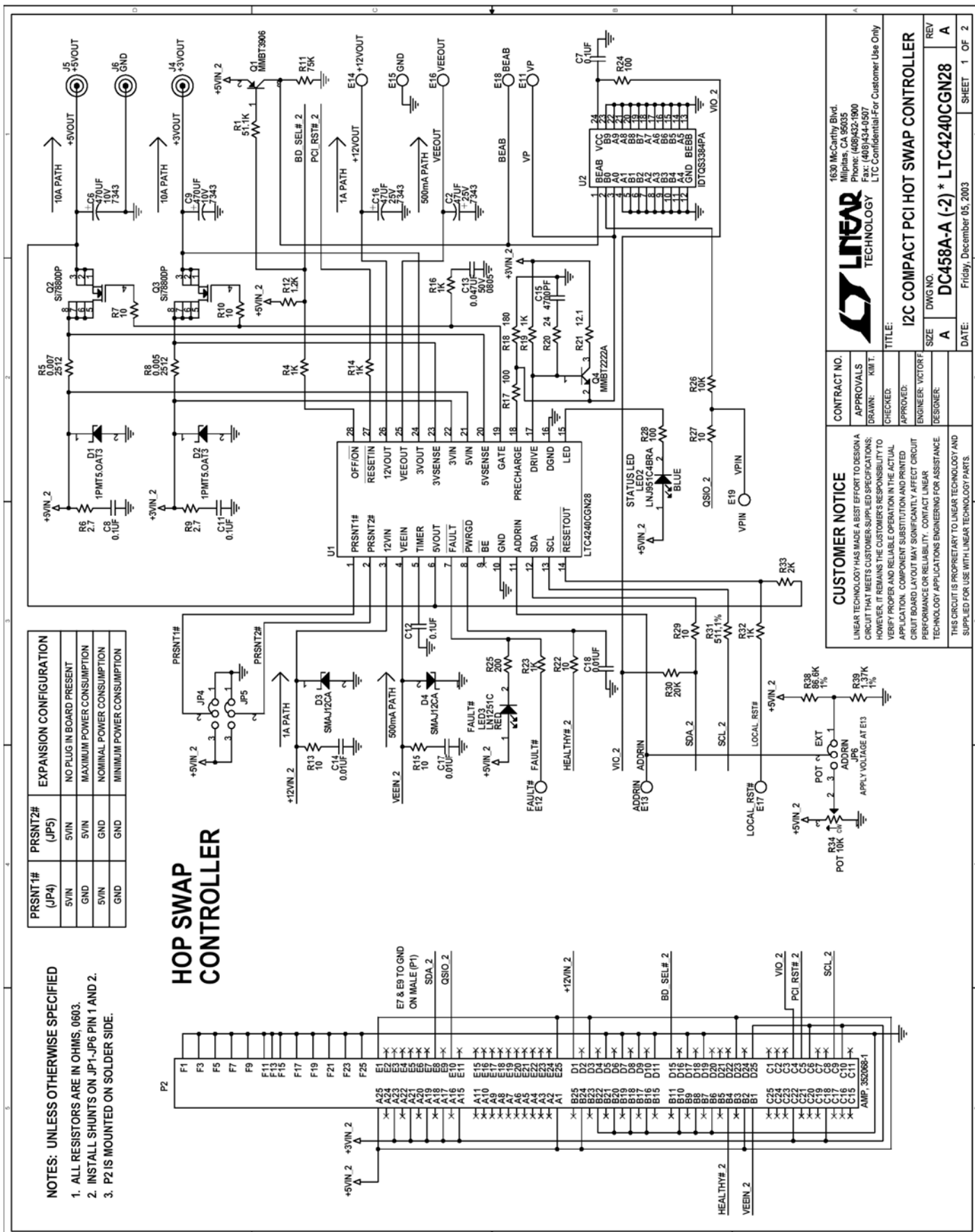


Figure 3. DC458 QuickEval Interface

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I2C COMPACT PCI HOT SWAP CONTROLLER



PRSNIT#1# (JP4)	PRSNIT#2# (JP5)	EXPANSION CONFIGURATION
5VIN	5VIN	NO PLUG IN BOARD PRESENT
GND	5VIN	MAXIMUM POWER CONSUMPTION
5VIN	GND	NOMINAL POWER CONSUMPTION
GND	GND	MINIMUM POWER CONSUMPTION

HOP SWAP CONTROLLER

- NOTES: UNLESS OTHERWISE SPECIFIED**
- ALL RESISTORS ARE IN OHMS, 0603.
 - INSTALL SHUNTS ON JP1-JP6 PIN 1 AND 2.
 - P2 IS MOUNTED ON SOLDER SIDE.

CONTRACT NO. APPROVALS
DESIGNER: VICTOR F
ENGINEER: VICTOR F
CHECKED: KIM T.
DATE: Friday, December 05, 2003

CUSTOMER NOTICE
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THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.

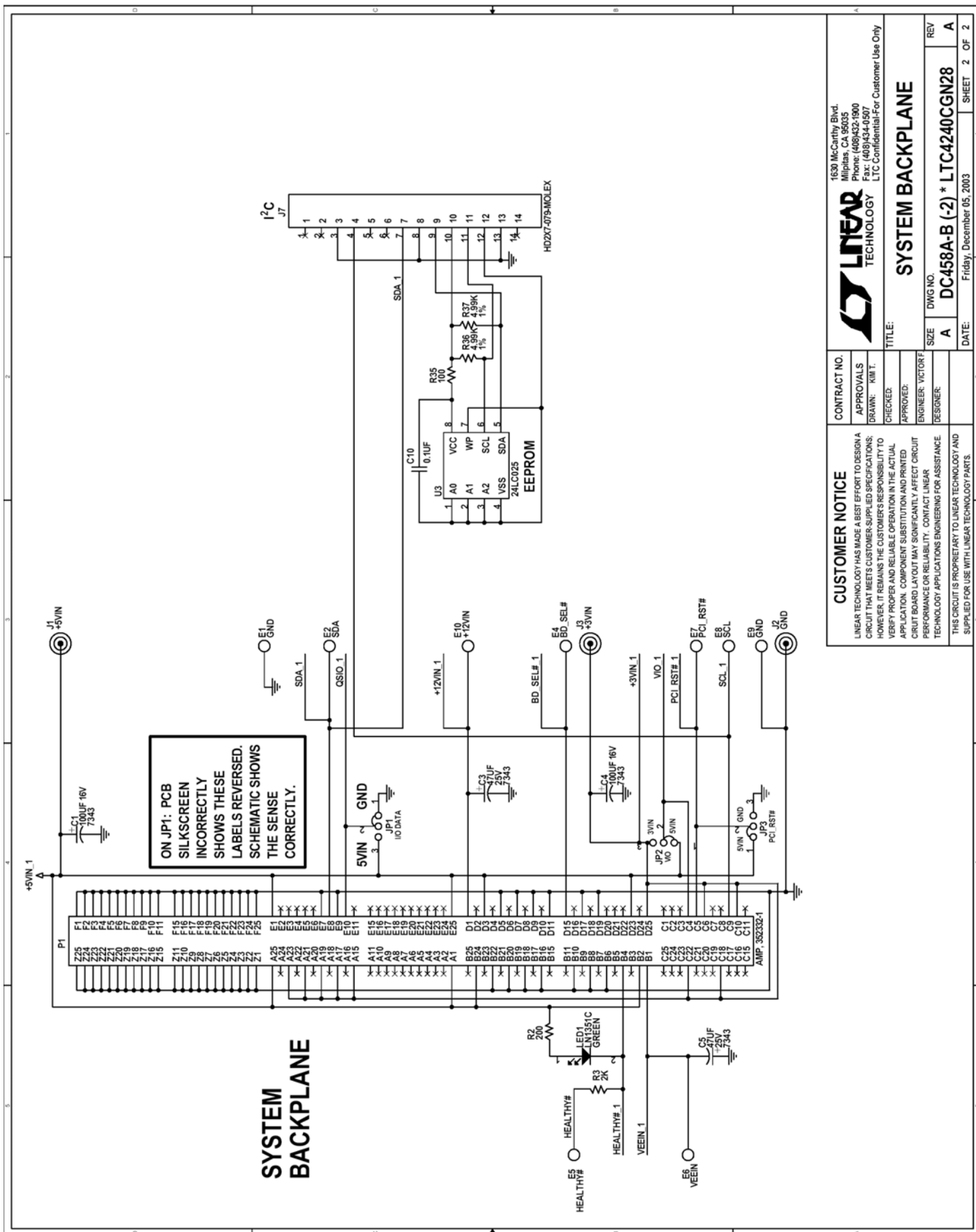
LINEAR TECHNOLOGY
 1630 McCarthy Blvd.
 Milpitas, CA 95035
 Phone: (408)432-1900
 Fax: (408)434-0507
 LTC Confidential-For Customer Use Only

TITLE: I2C COMPACT PCI HOT SWAP CONTROLLER

REV A
SIZE DC458A-A (-2) * LTC4240CGN28
DWG NO. A
DATE: Friday, December 05, 2003
SHEET 1 OF 2

QUICK START GUIDE FOR DEMONSTRATION CIRCUIT 458

I2C COMPACT PCI HOT SWAP CONTROLLER



SYSTEM BACKPLANE

ON JP1: PCB SILKSCREEN INCORRECTLY SHOWS THESE LABELS REVERSED. SCHEMATIC SHOWS THE SENSE CORRECTLY.

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THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		DRAWN: KMH T.	
		CHECKED:	
		APPROVED:	
		ENGINEER: VICTOR F.	
		DESIGNER:	
		TITLE:	
		1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 Fax: (408)434-0907 LTC Confidential-For Customer Use Only	
		LINEAR TECHNOLOGY	
		SYSTEM BACKPLANE	
SIZE	DWG NO.	REV	
A	DC458A-B (-2) * LTC4240CGN28	A	
DATE:	Friday, December 05, 2003	SHEET	2 OF 2