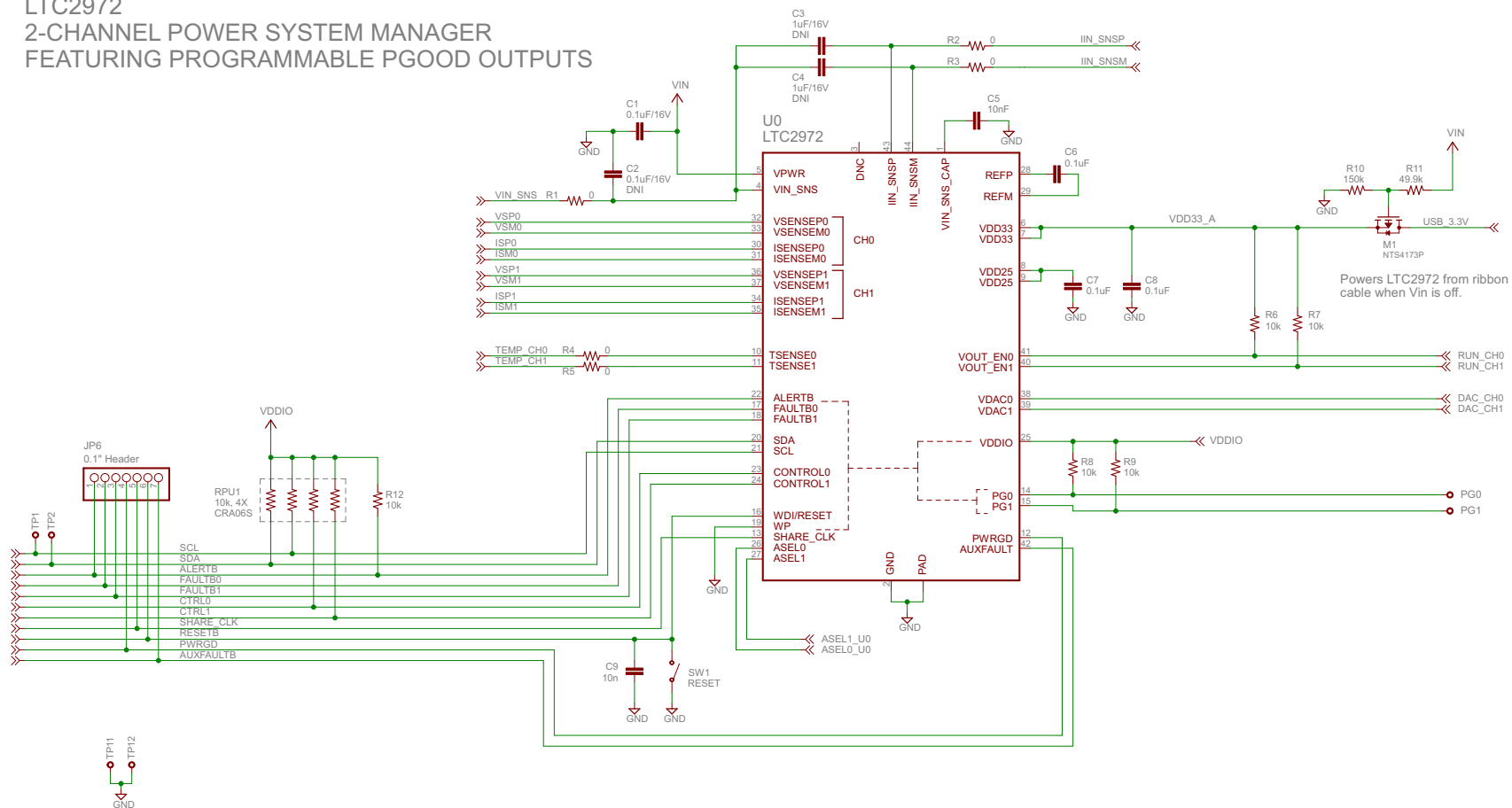


LTC2972

2-CHANNEL POWER SYSTEM MANAGER

FEATURING PROGRAMMABLE PGOOD OUTPUTS



NOTES: UNLESS OTHERWISE SPECIFIED:

1. ALL RESISTORS ARE 1% 0402.
2. ALL CAPACITORS ARE 0402.

CUSTOMER NOTICE

LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.

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

APPROVALS

PCB DES. MIKE P.

APP ENG. MIKE P.



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Folsom, CA 95630
Phone (408) 432-1900
Fax (408) 434-9957
www.linear.com

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TITLE: LTC2972UJF 2-CHANNEL
POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A

REV: 1

SCALE = NONE

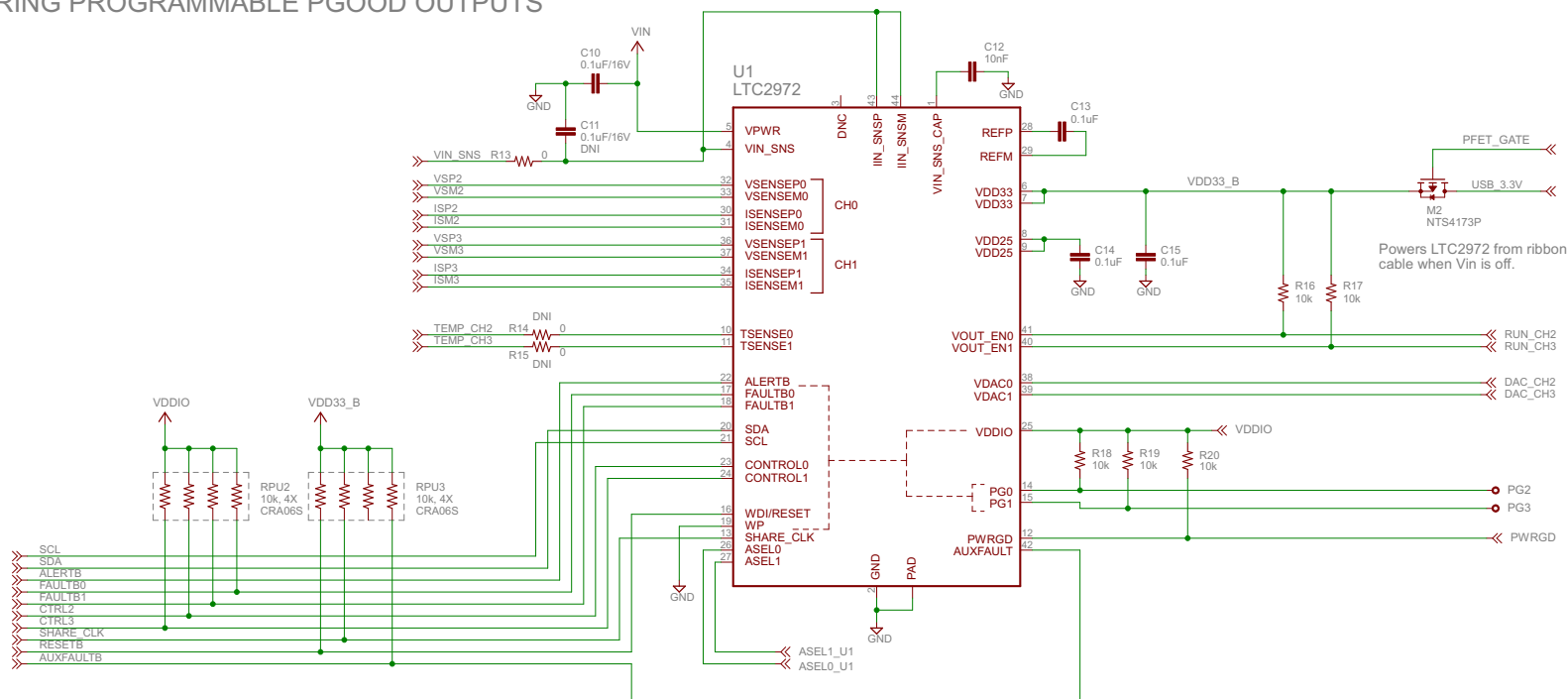
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SHEET: 1/5

LTC2972

2-CHANNEL POWER SYSTEM MANAGER

FEATURING PROGRAMMABLE PGOOD OUTPUTS



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TITLE: LTC2972UJF 2-CHANNEL
POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A

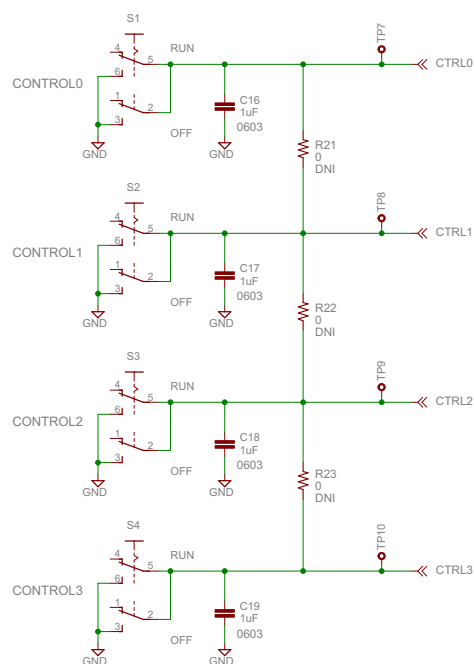
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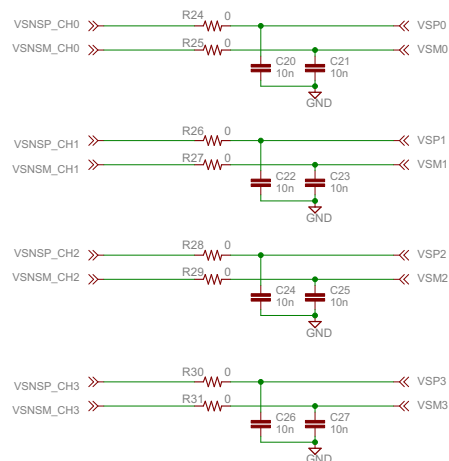
SHEET: 2/5

CTRL Switches

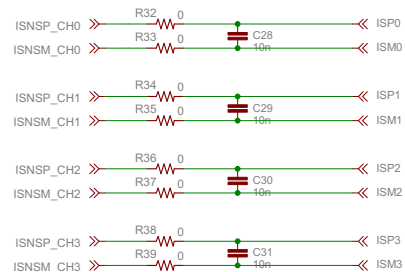


Install R21-R23 to allow one switch to control all channels.
One RUN switch set to 'off' will disable all channels.
Install R21-R23 to allow support for tracking.

Voltage Sense Filtering

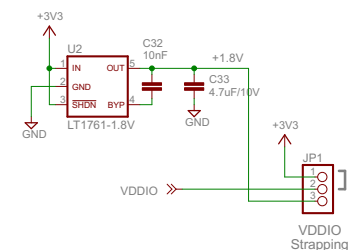


Current Sense Filtering

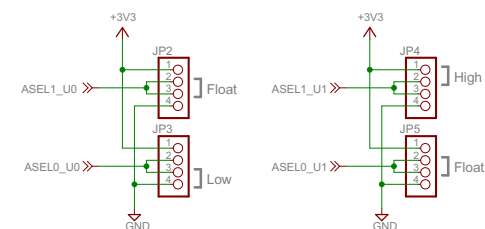


REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	1	PRODUCTION	MIKE P.	

1.8V VDDIO Regulator



Address Select Jumpers



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APPROVALS

PCB DES. MIKE P.

APP ENG. MIKE P.



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TITLE: LTC2972UJF 2-CHANNEL
POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A

REV: 1

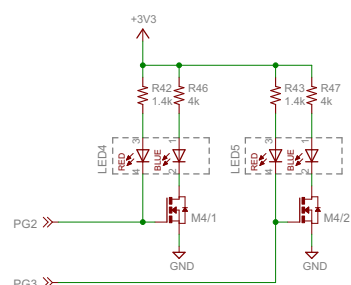
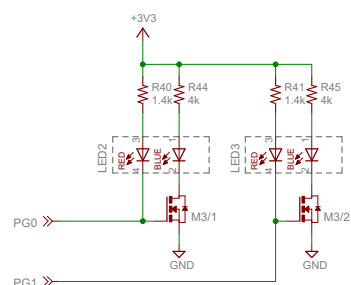
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DATE: 9/25/2017 10:45:44 AM

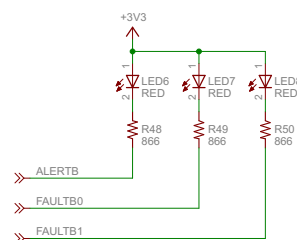
SHEET: 3/5

REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE

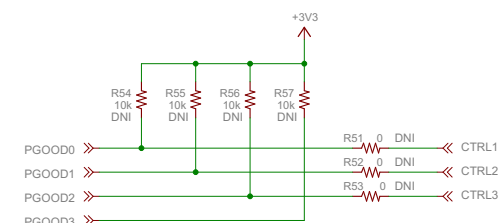
PG LED Indication



Fault LED Indication



PGOOD Pullups to support cascade-on sequencing



If R51-R53 are installed, be sure that RUN switches for CH1-CH3 are in the 'on' position. CH0's RUN switch is used as the main control switch.

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APP ENG. MIKE P.



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TITLE: LTC2972UJF 2-CHANNEL
POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A

REV: 1

SCALE = NONE

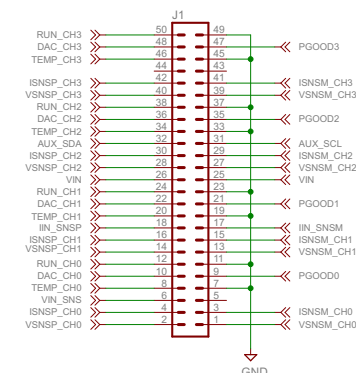
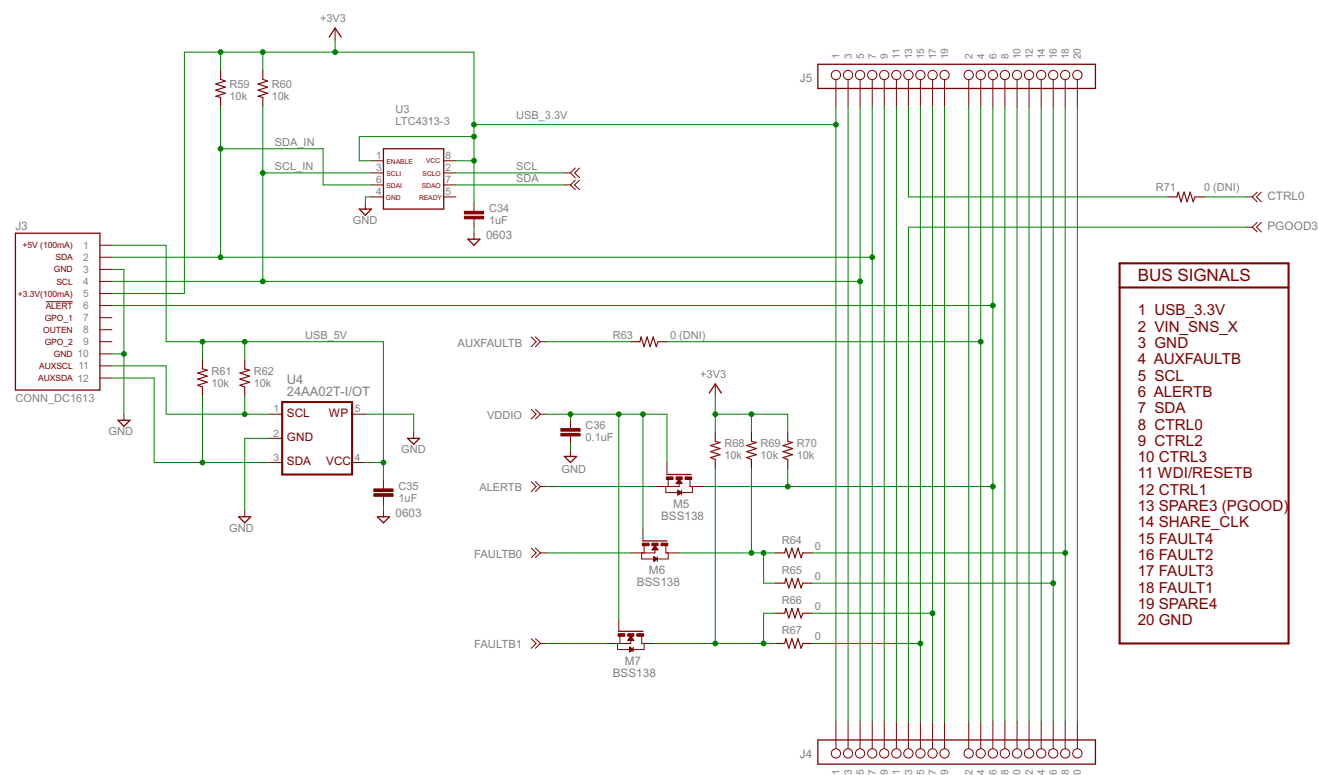
DATE: 9/25/2017 10:45:44 AM

SHEET: 4/5

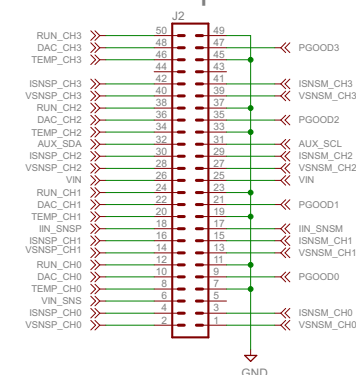
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	1	PRODUCTION	MIKE P.	

Board-to-Board Expansion Connectors

Load Board Connector




Test Points/ Optional Header




NOTES: UNLESS OTHERWISE SPECIFIED:

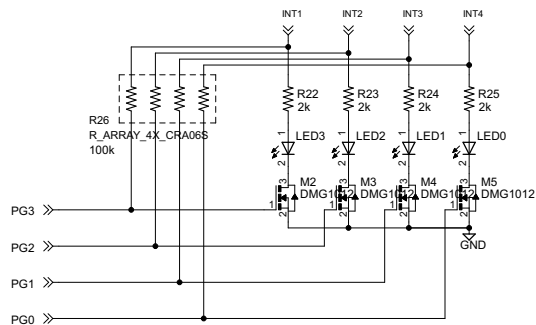
1. ALL RESISTORS ARE 1% 0402.
2. ALL CAPACITORS ARE 0402.

CUSTOMER NOTICE		APPROVALS			1638 McCarty Blvd. Milpitas, CA 95035 Phone (408) 432-1980 Fax (408) 434-9957 www.linear.com	LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
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		APP ENG.	MIKE P.	TITLE: LTC2972UJF 2-CHANNEL POWER SYSTEM MANAGER		
				SIZE B	IC NO. LTC2972 DEMO CIRCUIT 2675A	Rev: 1
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		SCALE = NONE	DATE: 9/25/2017 10:45:44 AM	SHEET: 5/5		

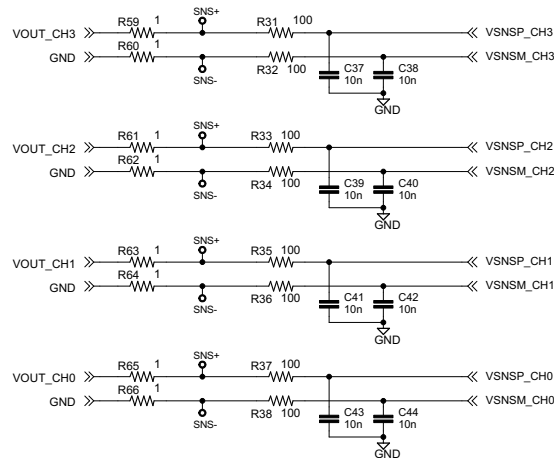
Quad 4A DC/DC Converter

<h1>CUSTOMER NOTICE</h1> <p>LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMERS RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.</p> <p>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS</p>		<table><tr><th colspan="2">APPROVALS</th></tr><tr><td>PCB DES.</td><td>MTP</td></tr><tr><td>APP ENG.</td><td>MTP</td></tr></table>		APPROVALS		PCB DES.	MTP	APP ENG.	MTP	<div><div>1430 McCarthy Blvd. Folsom, CA 95635 Phone (408) 432-1988 Fax (408) 432-9957 www.linear.com</div><div>LTC CONFIDENTIAL FOR CUSTOMER USE ONLY</div></div>	
APPROVALS											
PCB DES.	MTP										
APP ENG.	MTP										
		TITLE: LTM4644-1 Quad 4A Supply with 50-pin Connector to Power System Manager									
		SIZE IC NO. LTM4644-1 B Demo Circuit 2363A		REV: 1b							
		SCALE = NONE		DATE: 11/29/2016 11:48:31.4 AM							
				SHEET: 1/3							

LED Indication

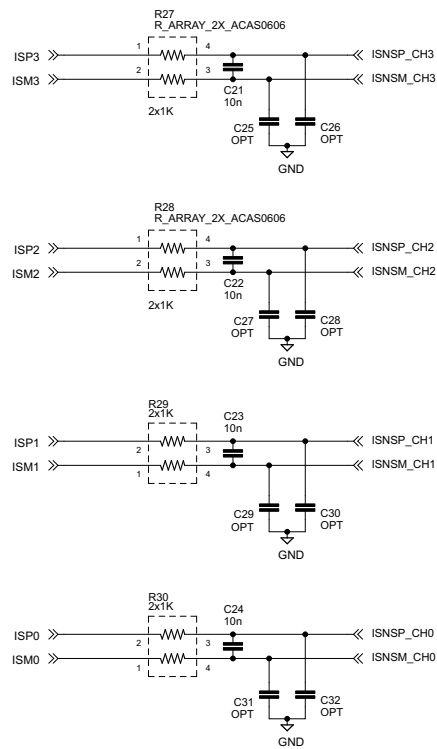


Voltage Sense Filtering

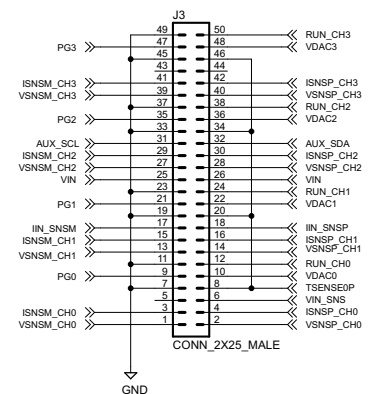


NOTE: REMOVE R59-R66 FOR REMOTE SENSING

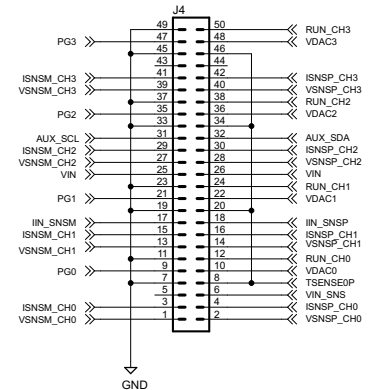
Current Sense Filtering



Board-to-Board Connector



Test Points/ Optional Header



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APPROVALS

PCB DES. MTP

APP ENG. MTP



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TITLE: LTM4644-1 Quad 4A Supply
with 50-pin Connector to Power System Manager

SIZE B IC NO. LTM4644-1
Demo Circuit 2363A

REV: 1b

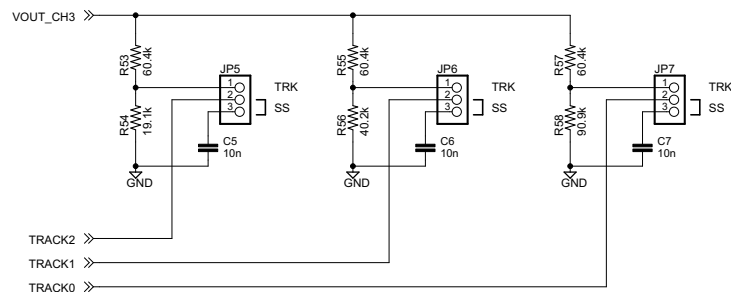
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DATE: 11/29/2016 11:03:14 AM

SHEET: 2/3

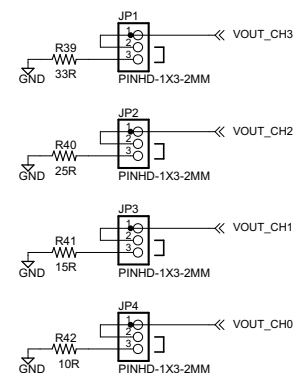
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	1b	Production	M. Peters	11-28-16

Tracking/SoftStart Jumpers



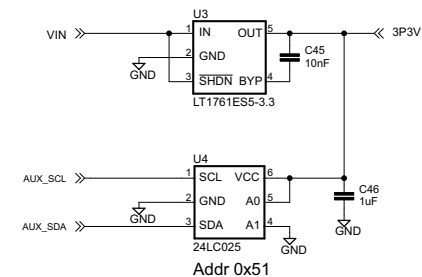
By default, jumpers set to SoftStart

Pre-Load Jumpers



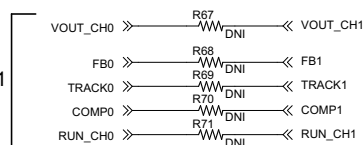
By default, jumpers set to pre-load ON

+3.3V LDO and Identity EEPROM

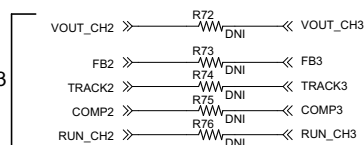


Optional Jumpers for Parallel Operation

Parallel CH0 and CH1



Parallel CH2 and CH3



R67 thru R76 are 0 ohm

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APP ENG. MTP



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TITLE: LTM4644-1 Quad 4A Supply
with 50-pin Connector to Power System Manager

SIZE B IC NO. LTM4644-1
Demo Circuit 2363A REV: 1b

SCALE = NONE

DATE: 11/29/2016 11:03:14 AM SHEET: 3/3