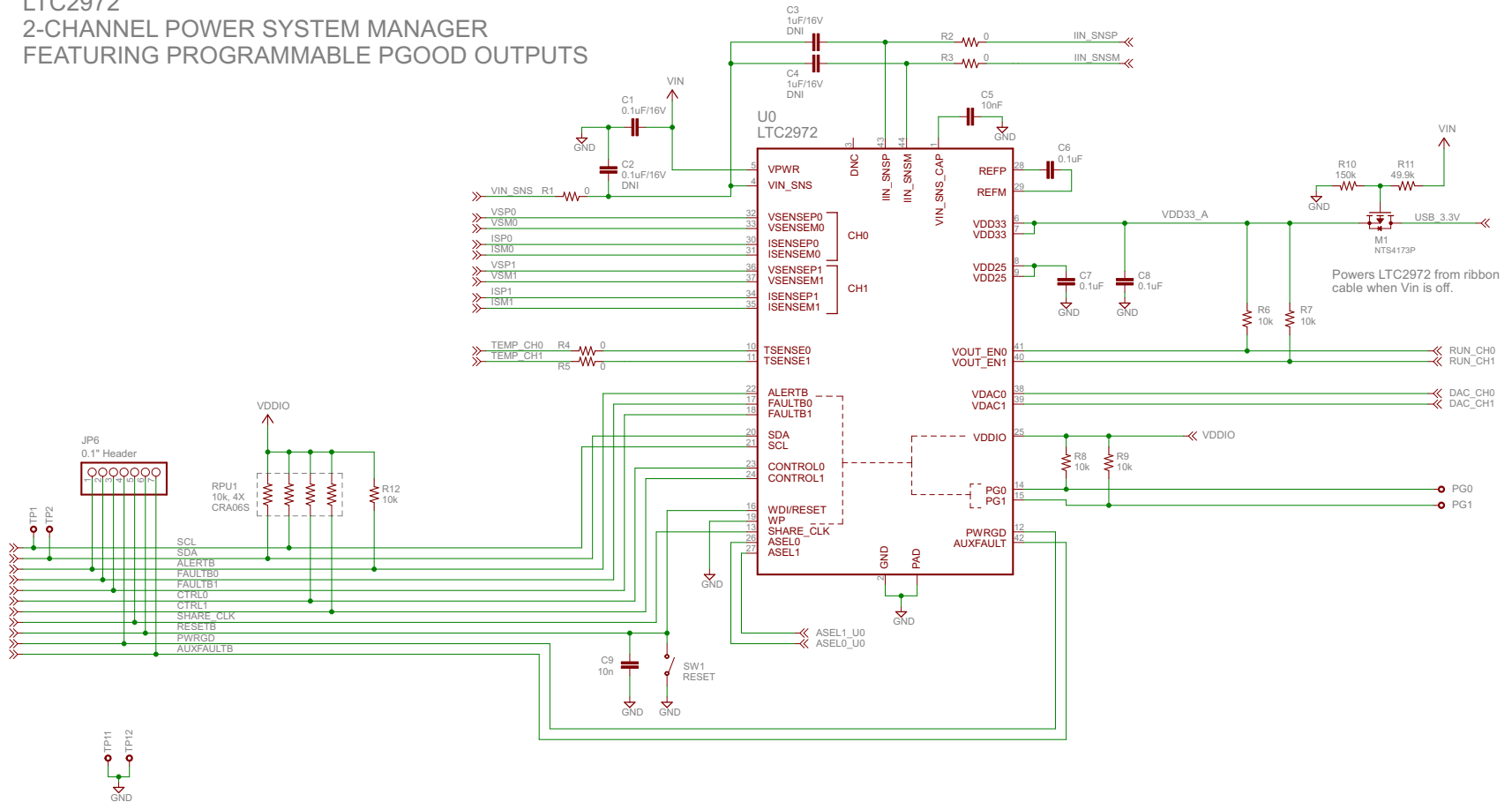


LTC2972

2-CHANNEL POWER SYSTEM MANAGER

FEATURING PROGRAMMABLE PGOOD OUTPUTS

REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE



- NOTES: UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS ARE 1% 0402.
 2. ALL CAPACITORS ARE 0402.

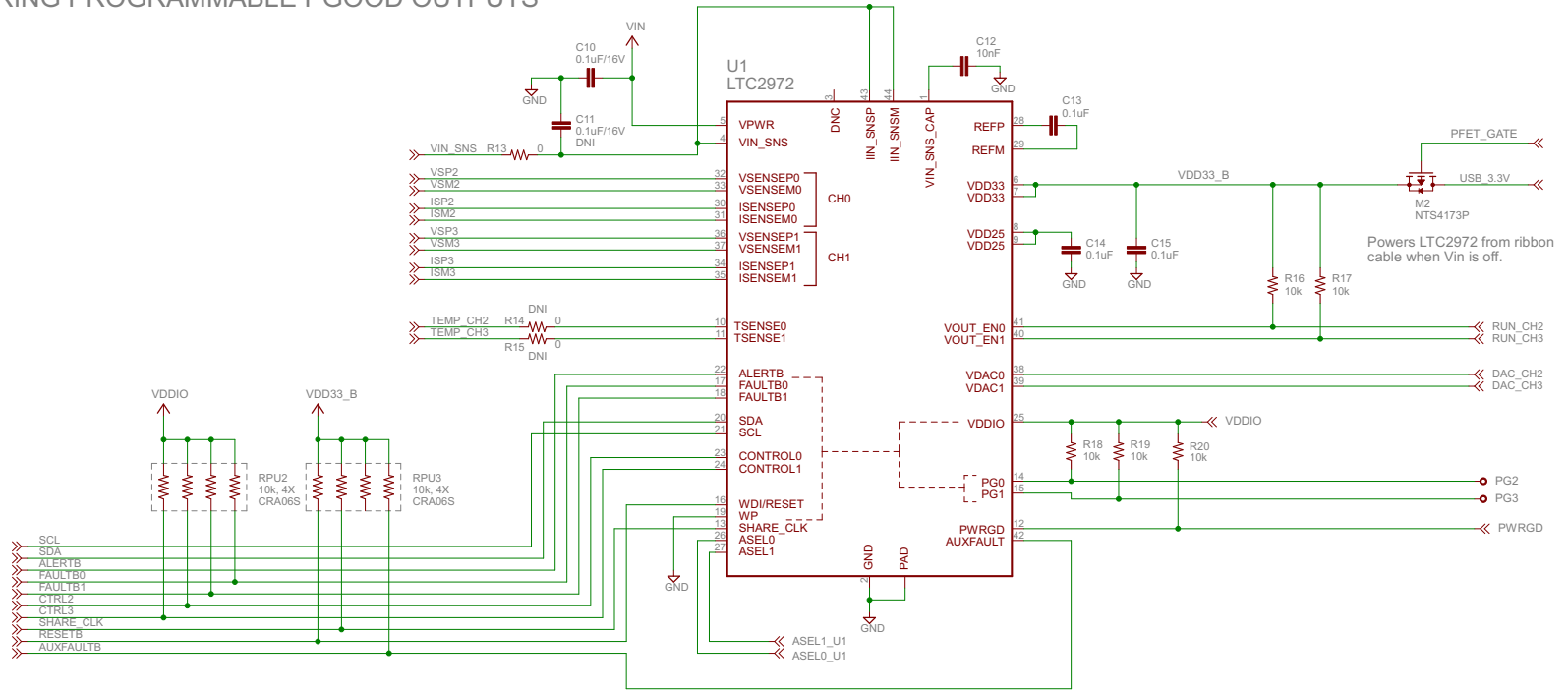
APPROVALS			<small>1430 McCarthy Blvd. Folsom, CA 95635 Phone (408) 432-1980 Fax (408) 434-9557 www.linear.com</small>		<small>LTC CONFIDENTIAL FOR CUSTOMER USE ONLY</small>
PCB DES.	MIKE P.		TITLE: LTC2972UJF 2-CHANNEL POWER SYSTEM MANAGER		
APP ENG.	MIKE P.	SIZE B	IC NO. LTC2972	REV: 1	
<small>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS</small>		SCALE = NONE	DATE: 9/25/2017 10:45:44 AM	SHEET: 1/5	

LTC2972

2-CHANNEL POWER SYSTEM MANAGER

FEATURING PROGRAMMABLE PGOOD OUTPUTS

REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE

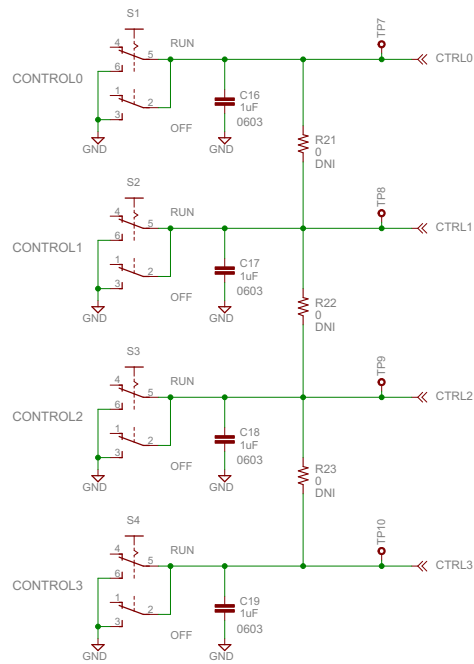


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<small>LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.</small>		PCB DES. MIKE P.	APP ENG. MIKE P.		
<small>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.</small>		SCALE = NONE	DATE: 9/25/2017 10:45:44 AM	SHEET: 2/5	

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

CTRL Switches

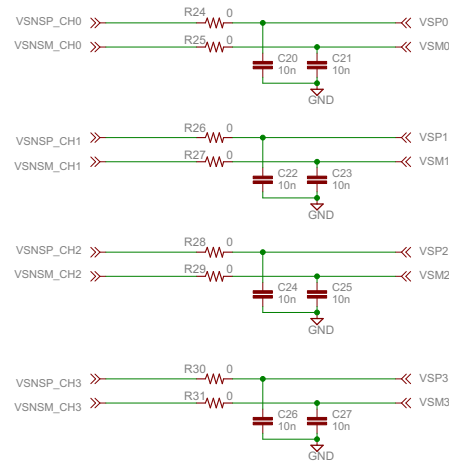


Install R21-R23 to allow one switch to control all channels.
One RUN switch set to 'off' will disable all channels.
Install R21-R23 to allow support for tracking.

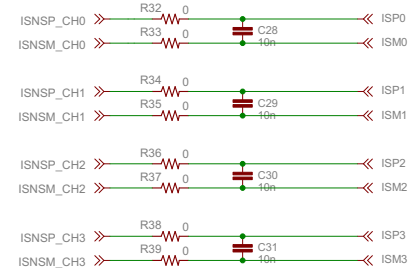
NOTES: UNLESS OTHERWISE SPECIFIED:

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

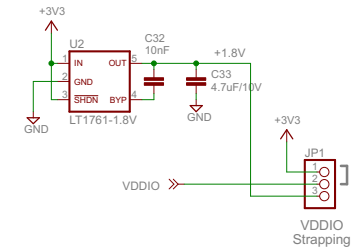
Voltage Sense Filtering



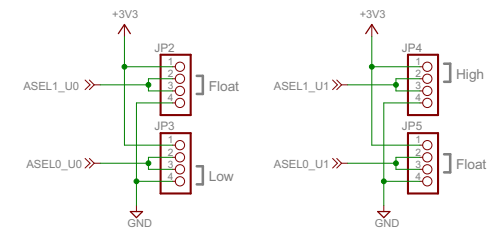
Current Sense Filtering



1.8V VDDIO Regulator



Address Select Jumpers



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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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USE ONLY

TITLE: LTC2972UJF 2-CHANNEL
POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A

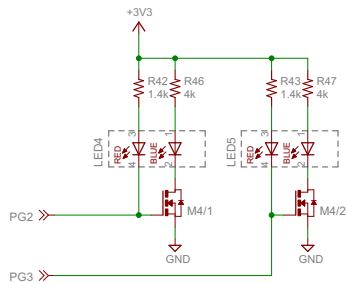
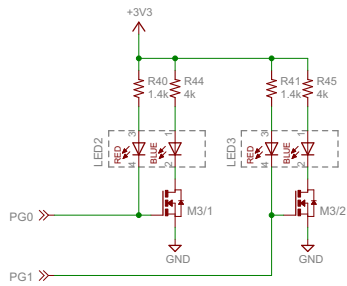
REV: 1

SCALE = NONE DATE: 9/25/2017 10:45:44 AM

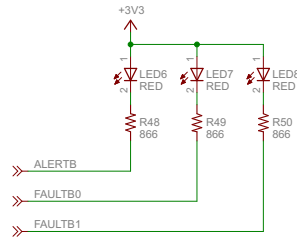
SHEET: 3/5

REVISION HISTORY			
ECO	REV	DESCRIPTION	DATE

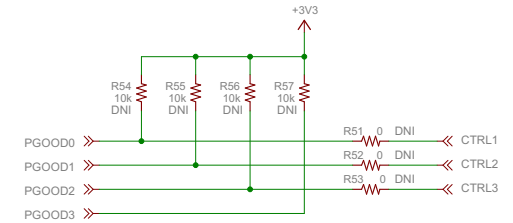
PG LED Indication



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.

NOTES: UNLESS OTHERWISE SPECIFIED:

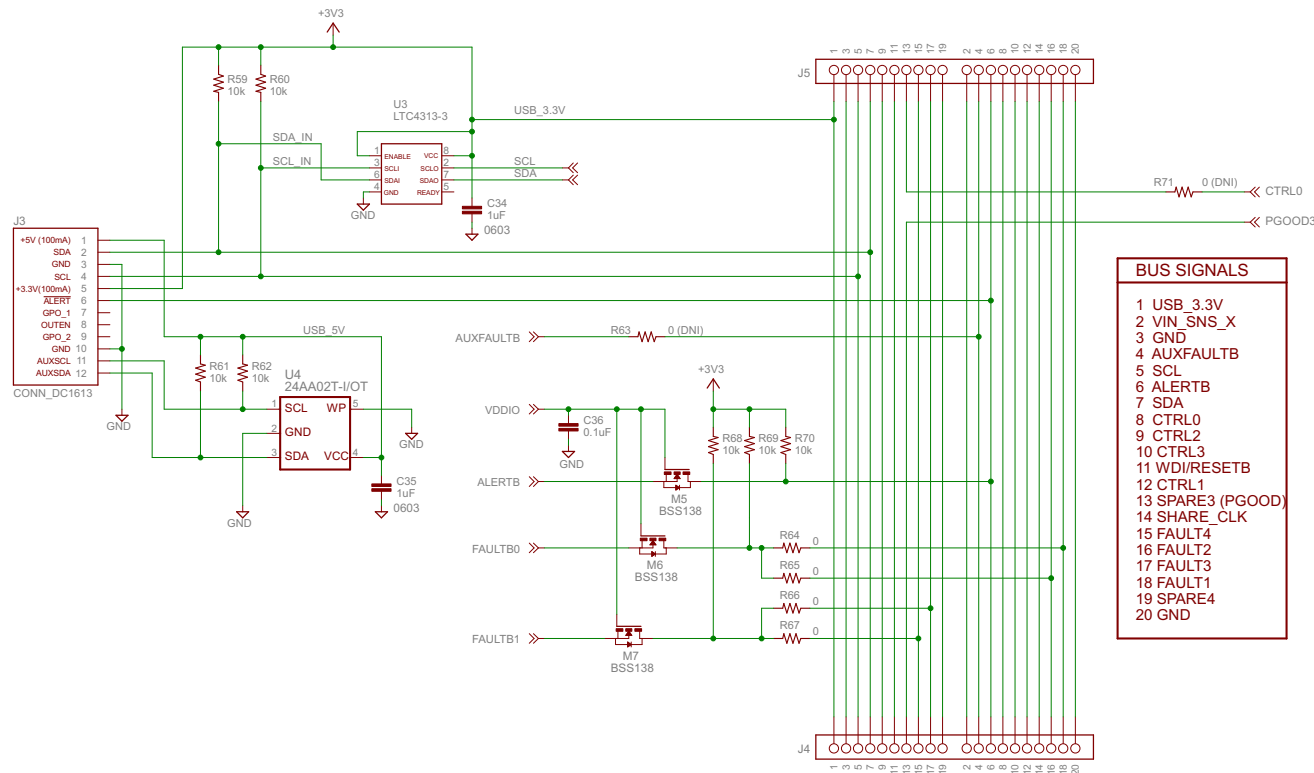
1. ALL RESISTORS ARE 1% 0402.
2. ALL CAPACITORS ARE 0402.

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<small>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.</small>		PCB DES. MIKE P.	APP ENG. MIKE P.		
<small>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS</small>		SCALE = NONE	DATE: 9/25/2017 10:45:44 AM	SIZE B IC NO. LTC2972 DEMO CIRCUIT 2675A	SHEET: 4/5

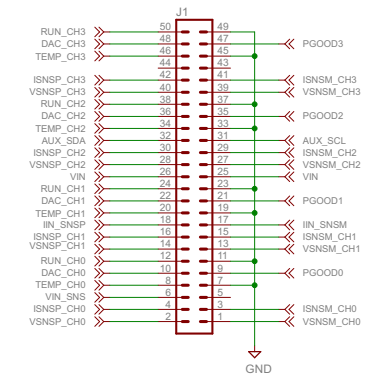
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	1	PRODUCTION	MIKE P.	

Board-to-Board Expansion Connectors

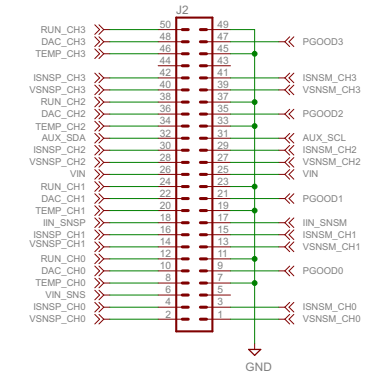
Load Board Connector



- BUS SIGNALS**
- 1 USB_3.3V
 - 2 VIN_SNS_X
 - 3 GND
 - 4 AUXFAULTB
 - 5 SCL
 - 6 ALERTB
 - 7 SDA
 - 8 CTRL0
 - 9 CTRL2
 - 10 CTRL3
 - 11 WDI/RESETB
 - 12 CTRL1
 - 13 SPARE3 (PGOOD)
 - 14 SHARE_CLK
 - 15 FAULT4
 - 16 FAULT2
 - 17 FAULT3
 - 18 FAULT1
 - 19 SPARE4
 - 20 GND



Test Points/ Optional Header



NOTES: UNLESS OTHERWISE SPECIFIED:

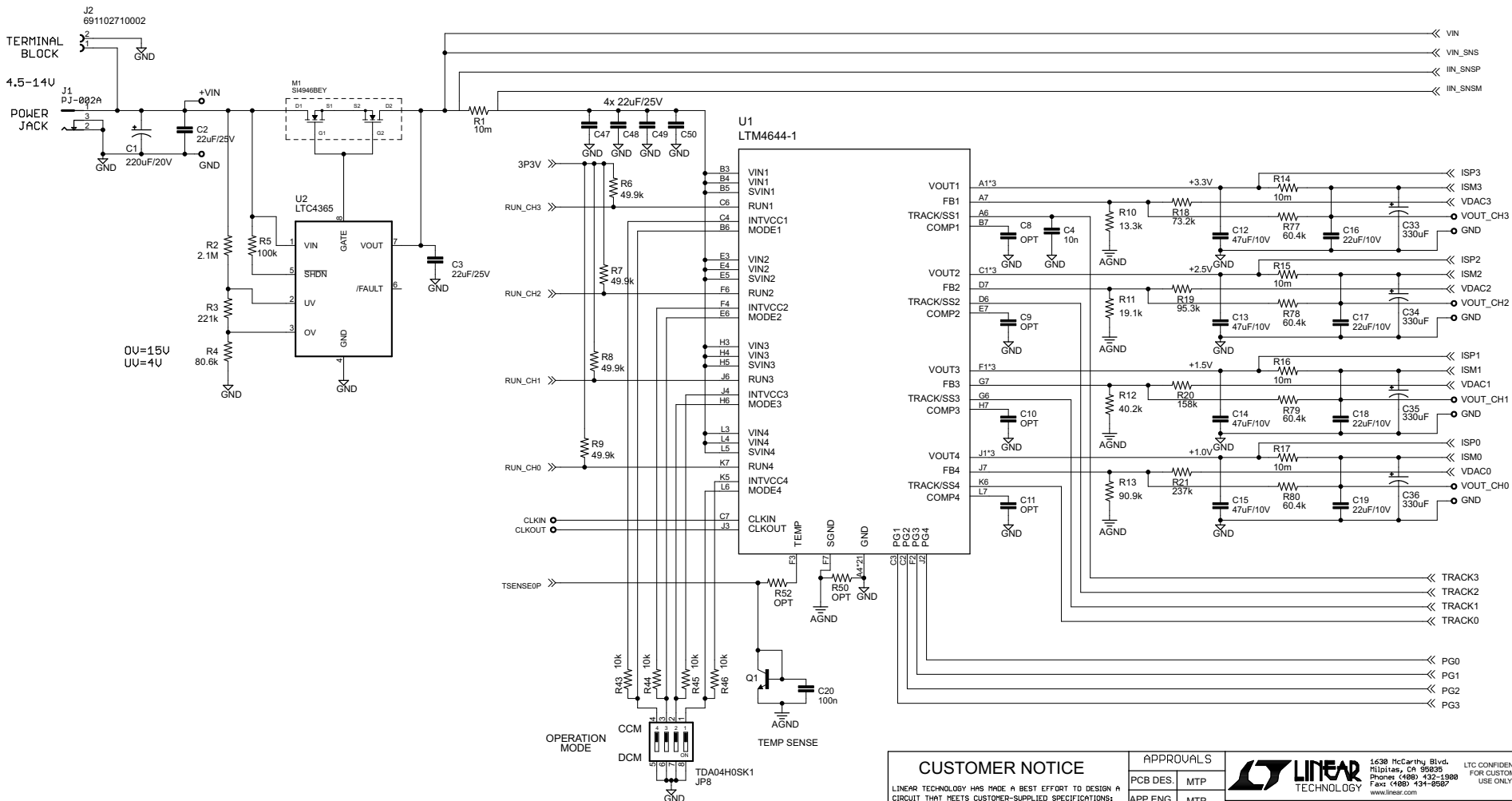
1. ALL RESISTORS ARE 1% 0402.
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THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS		APP ENG.	MIKE P.	SIZE	B	IC NO.	LTC2972	REV:	1
		SCALE = NONE	DATE:	9/25/2017 10:45:44 AM	DEMO CIRCUIT 2675A	SHEET:	5/5		

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

Input Protection (OV/UV/Reverse)

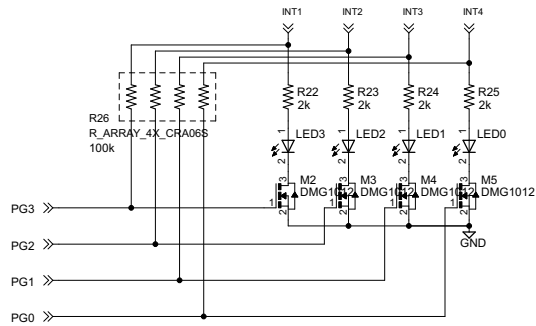
Quad 4A DC/DC Converter



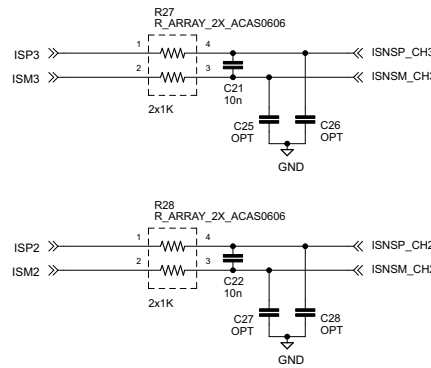
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THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS		APP ENG.	MTP	SIZE: B IC NO. LTM4644-1 Demo Circuit 2363A			REV: 1b
		SCALE = NONE		DATE: 11/29/2016 11:03:14 AM			SHEET: 1/3

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

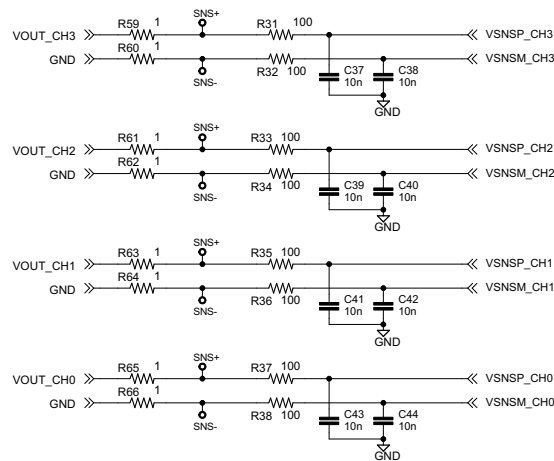
LED Indication



Current Sense Filtering

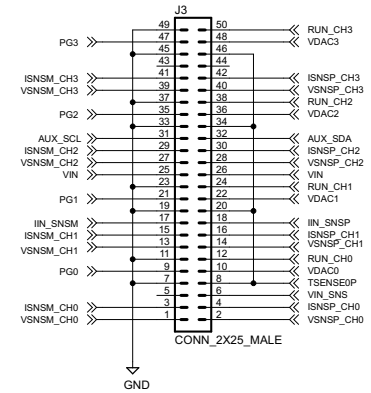


Voltage Sense Filtering

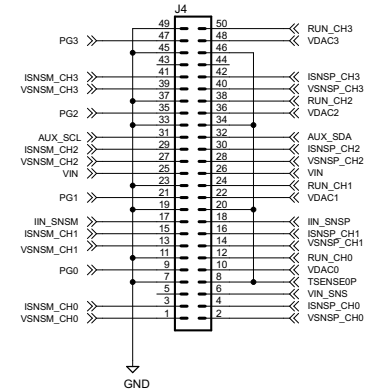


NOTE: REMOVE R59-R66 FOR REMOTE SENSING

Board-to-Board Connector



Test Points/ Optional Header

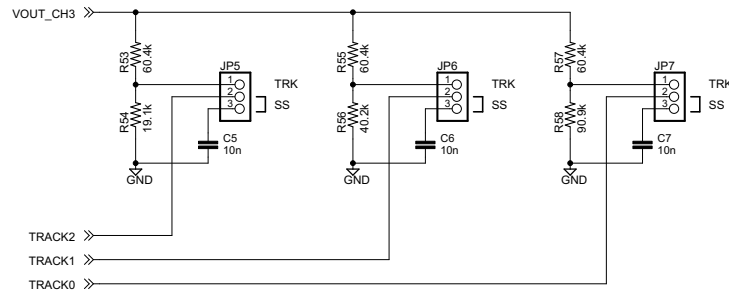


APPROVALS		LTC CONFIDENTIAL FOR CUSTOMER USE ONLY	
PCB DES.	MTP	LTC CONFIDENTIAL FOR CUSTOMER USE ONLY	
APP ENG.	MTP	LTC CONFIDENTIAL FOR CUSTOMER USE ONLY	
TITLE: LTM4644-1 Quad 4A Supply with 50-pin Connector to Power System Manager		LTC CONFIDENTIAL FOR CUSTOMER USE ONLY	
SIZE B		IC NO. LTM4644-1	REV: 1b
SCALE = NONE		DATE: 11/29/2016 11:03:14 AM	SHEET: 2/3

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

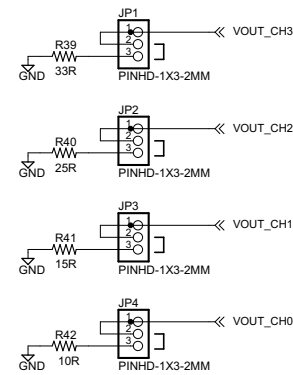
REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	1b	Production	M. Peters	11-28-16

Tracking/SoftStart Jumpers



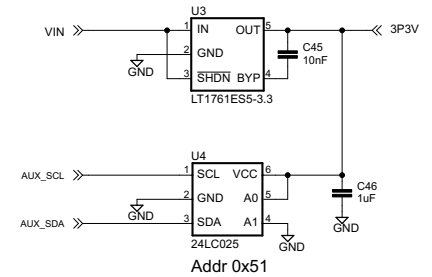
By default, jumpers set to SoftStart

Pre-Load Jumpers

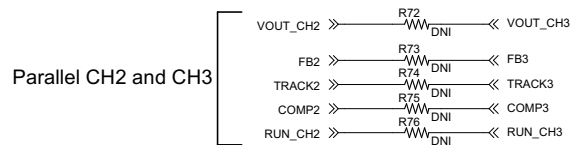
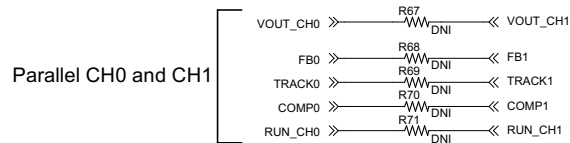


By default, jumpers set to pre-load ON

+3.3V LDO and Identity EEPROM



Optional Jumpers for Parallel Operation



R67 thru R76 are 0 ohm

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PCB DES.	MTP		TITLE: LTM4644-1 Quad 4A Supply with 50-pin Connector to Power System Manager		
APP ENG.	MTP	SIZE B IC NO. LTM4644-1 REV: 1b Demo Circuit 2363A			
<small>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS</small>		<small>SCALE = NONE</small>	<small>DATE: 11/29/2016 11:03:14 AM</small>	<small>SHEET: 3/3</small>	