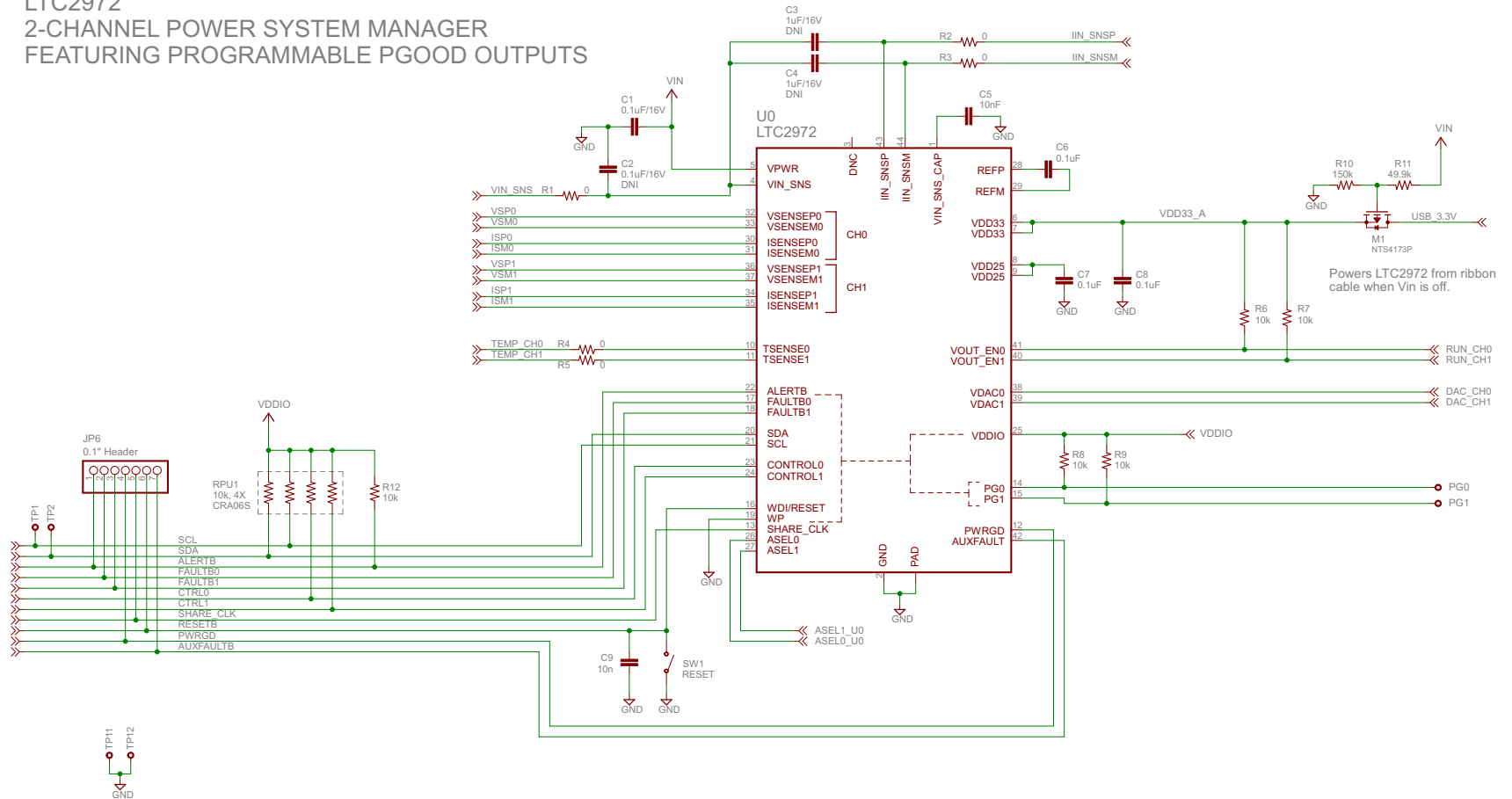


LTC2972 2-CHANNEL POWER SYSTEM MANAGER FEATURING PROGRAMMABLE PGOOD OUTPUTS



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.



1630 McCarthy Blvd.
Folsom, CA 95630
Phone (408) 432-1900
Fax (408) 434-9957
www.linear.com

LTC CONFIDENTIAL
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TITLE: LTC2972UJF 2-CHANNEL
POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A REV: 1

SCALE = NONE

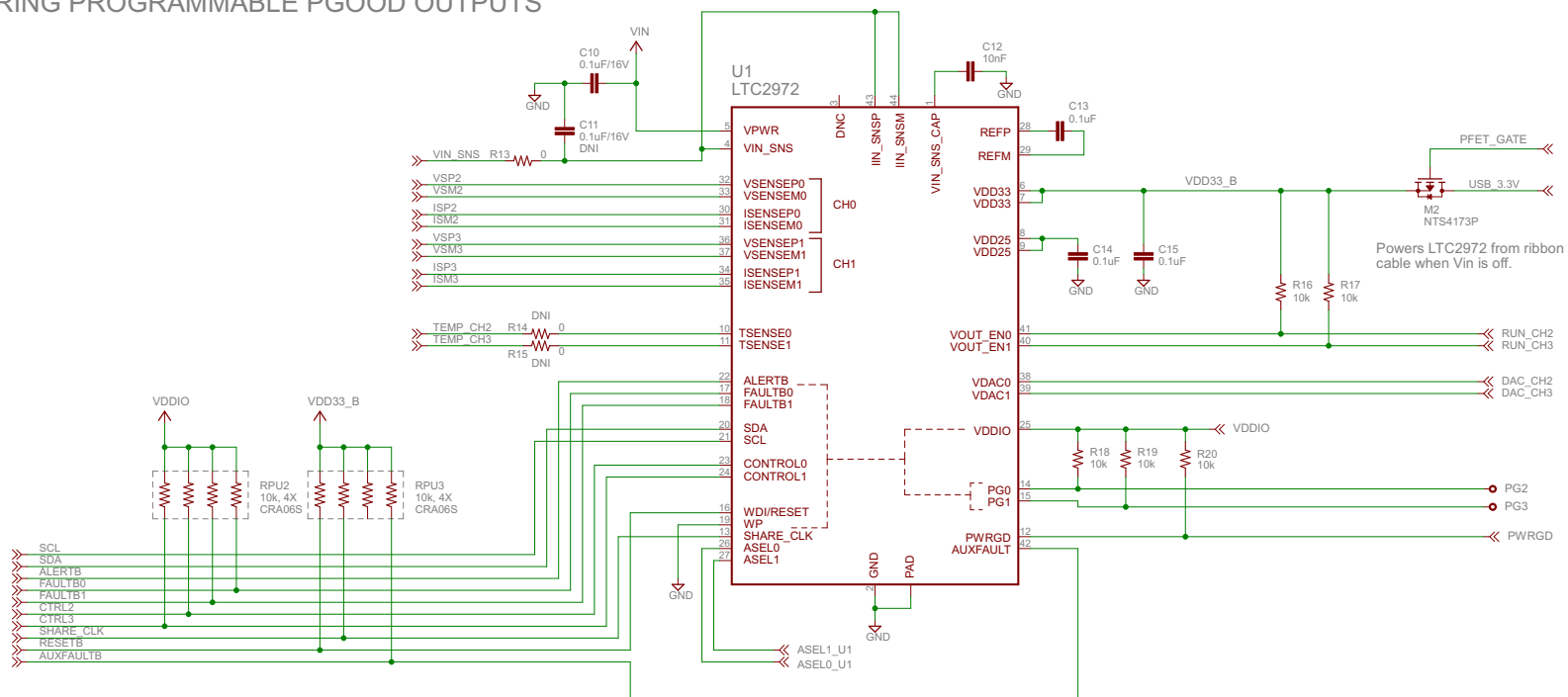
DATE: 9/25/2017 10:45:44 AM

SHEET: 1/5


LTC2972

2-CHANNEL POWER SYSTEM MANAGER

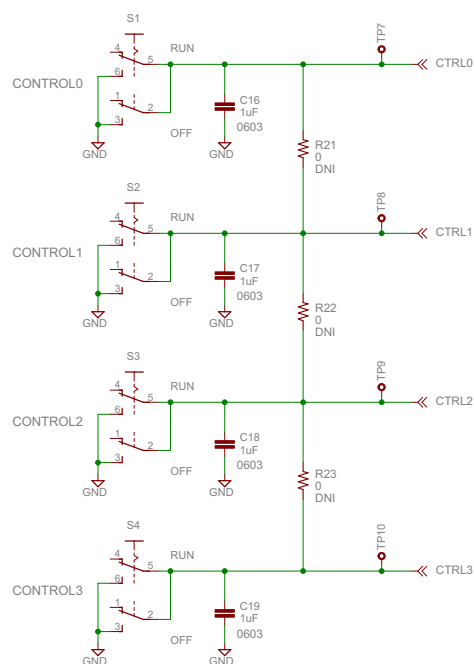
FEATURING PROGRAMMABLE PGOOD OUTPUTS



- NOTES: UNLESS OTHERWISE SPECIFIED:
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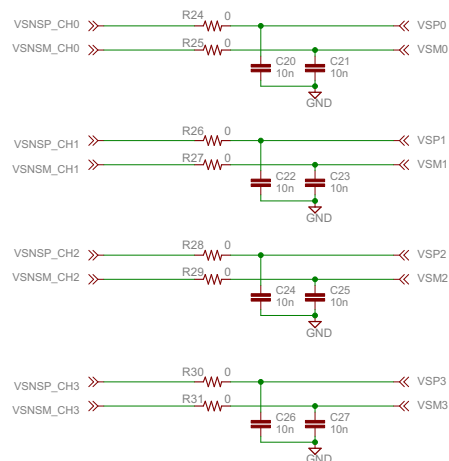
| | | | | | |
|---|--|--------------|-----------------------------|---|--|
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| | | APP ENG. | MIKE P. | TITLE: LTC2972UJF 2-CHANNEL POWER SYSTEM MANAGER | |
| | | SIZE | IC NO. | LTC2972 | REV: |
| | | B | | DEMO CIRCUIT 2675A | 1 |
| <small>THIS CIRCUIT 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: 2/5 | |

CTRL Switches

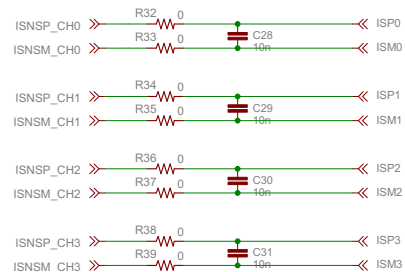


Install R21-R23 to allow one switch to control all channels.
One RUN switch set to 'off' will disable all channels.
Install R21-R23 to allow support for tracking.

Voltage Sense Filtering

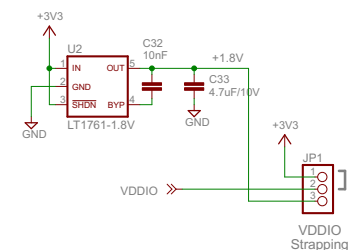


Current Sense Filtering

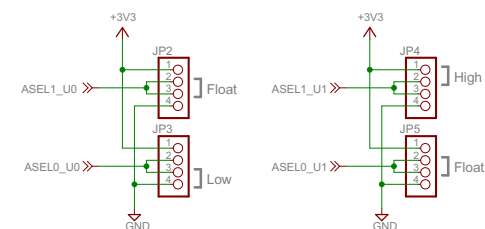


| REVISION HISTORY | | | | |
|------------------|-----|-------------|----------|------|
| ECO | REV | DESCRIPTION | APPROVED | DATE |
| - | 1 | PRODUCTION | MIKE P. | |

1.8V VDDIO Regulator



Address Select Jumpers



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POWER SYSTEM MANAGER

SIZE B IC NO. LTC2972
DEMO CIRCUIT 2675A

REV: 1

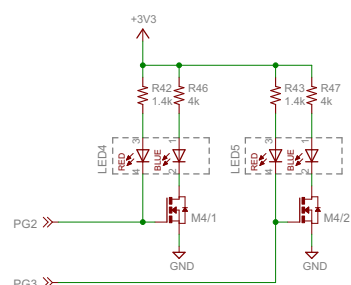
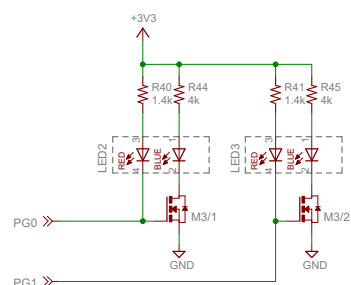
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DATE: 9/25/2017 10:45:44 AM

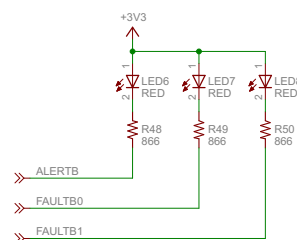
SHEET: 3/5

| REVISION HISTORY | | | | |
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| ECO | REV | DESCRIPTION | APPROVED | DATE |
| | | | | |

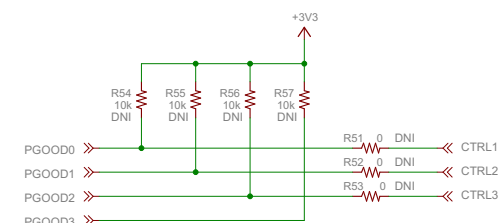
PG LED Indication



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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DEMO CIRCUIT 2675A

REV: 1

SCALE = NONE

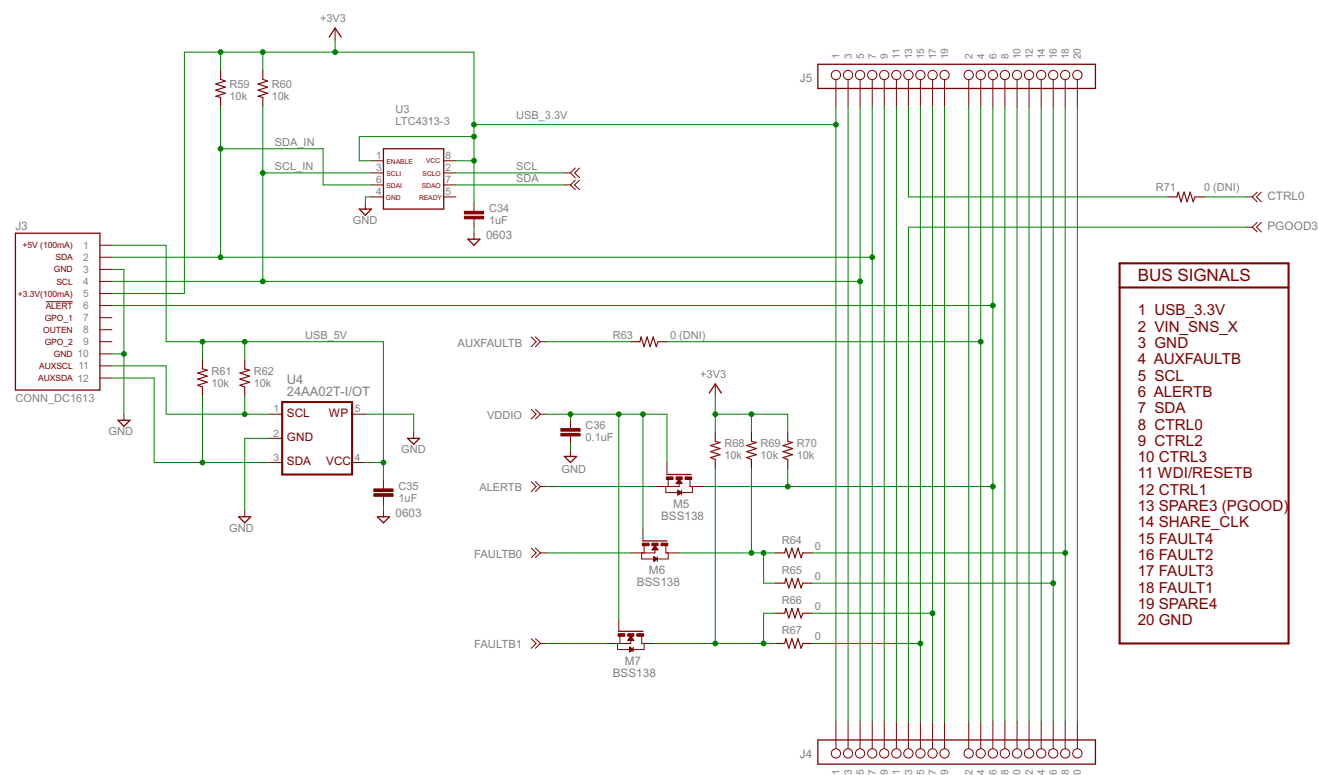
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SHEET: 4/5

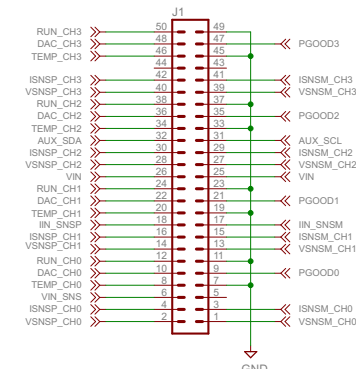
| REVISION HISTORY | | | |
|------------------|-----|-------------|---------|
| ECO | REV | DESCRIPTION | DATE |
| | 1 | PRODUCTION | MIKE P. |

Board-to-Board Expansion Connectors

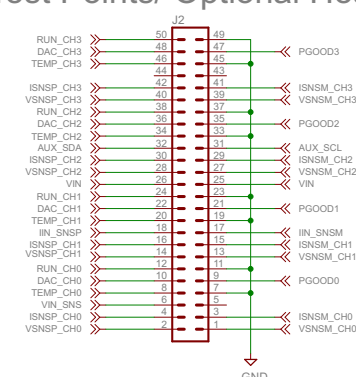
Load Board Connector



- 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



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| | | | | | | |
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| | | B | | DEMO CIRCUIT 2675A | | |
| SCALE = NONE | | DATE: 9/25/2017 10:45:44 AM | | | SHEET: 5/5 | |