

1 ROOT: Table of Contents (phoenix).

BUS

2

bus/bus.sch

POWER\_OUT

3

pdn/pdn.sch

4 UNREG\_SWITCH: Configurable Unregulated Bus Switch (sw)

5 DEP\_SWITCH: Dedicated Antenna Deployment Bus Switch (sw)

6 VDD\_REG: 3.3V/1A Buck Regulator and Telemetry for System VDD (reg1)

7 RUNSWITCH: Watchdog Timer and Master Reset Switch (rsw)

8 UNREG\_MON: Unregulated Bus Power Telemetry (pmon1)

9 PL\_REG: Dual 5V/3A Buck Regulator for Payload Buses (reg2)

10 RTC\_REG: 3.3V Dedicated Linear Regulator for Real-Time-Clock (ldo)

11 CSS\_REG: 3.3V Dedicated Linear Regulator for Sun Sensor Bias (ldo)

12 PL\_MON: Dual Payload Bus Power Telemetry (pmon2)

POWER\_IN

13

bat/bat.sch

14 SA1\_IMON: Dual Solar Panel Bus Current Telemetry (imon2)

15 SA1\_CSS: Dual Sun Sensor Transimpedance Amplifiers (css)

16 SA2\_IMON: Dual Solar Panel Bus Current Telemetry (imon2)

17 SA2\_CSS: Dual Sun Sensor Transimpedance Amplifiers (css)

18 SA3\_IMON: Dual Solar Panel Bus Current Telemetry (imon2)

19 SA3\_CSS: Dual Sun Sensor Transimpedance Amplifiers (css)

20 BAT\_IMON: Bi-directional Battery Bus Current Telemetry (imon1)

DIGITAL

21

mcu/mcu.sch

SIGNAL\_MAP

22

filters/filters.sch



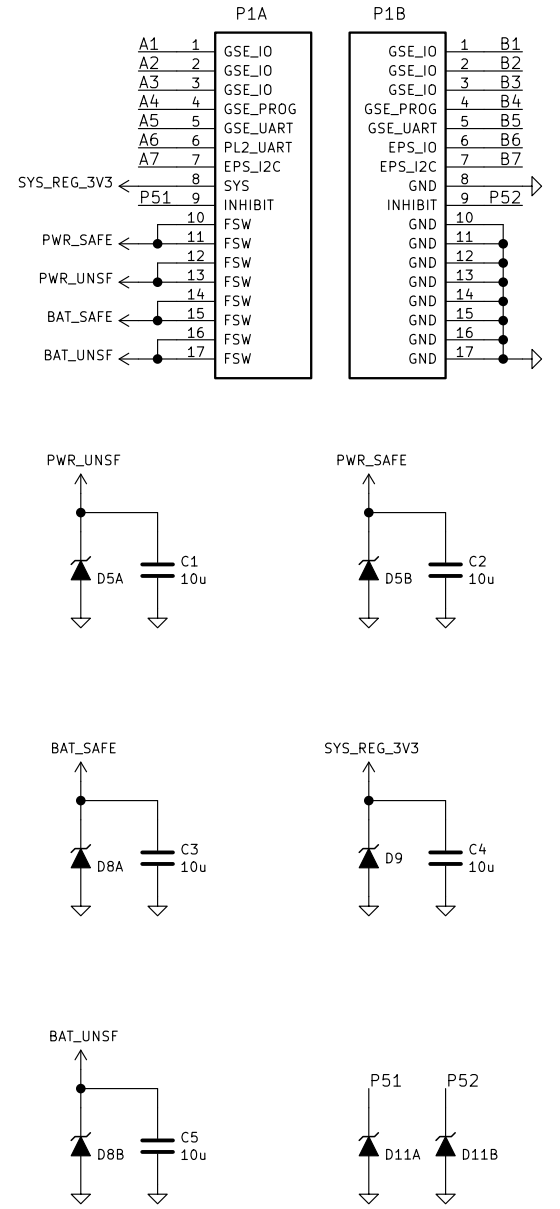
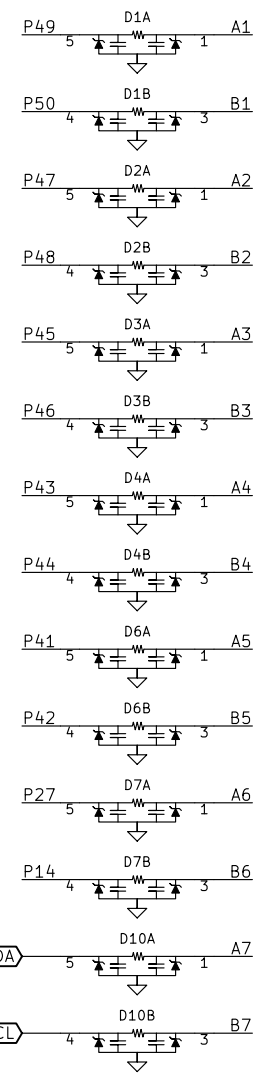
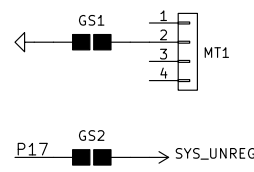
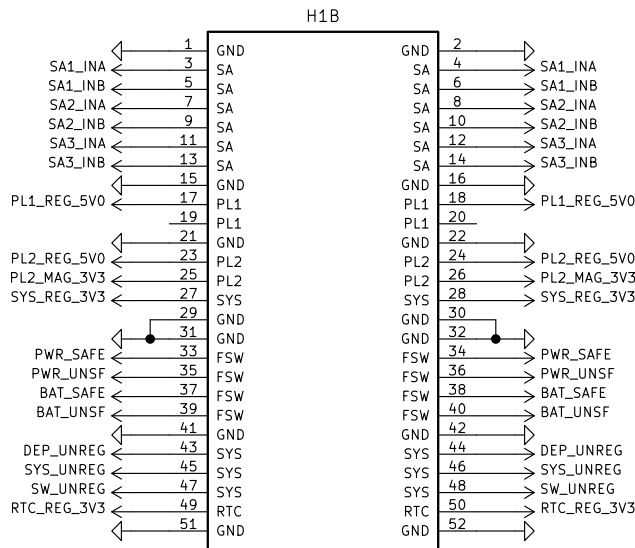
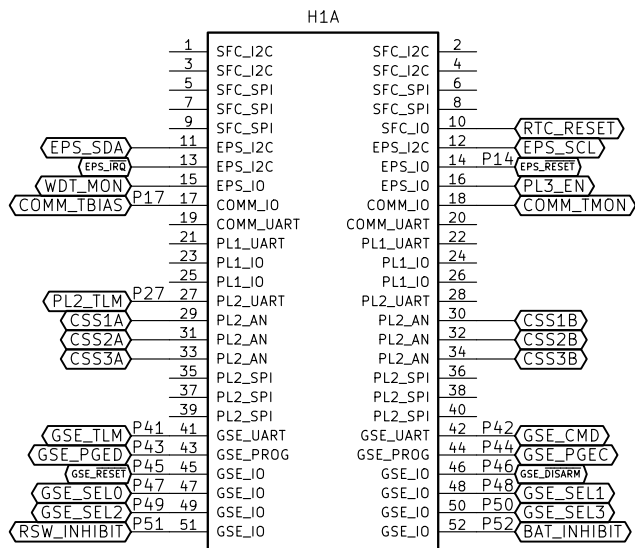
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Phoenix EPS

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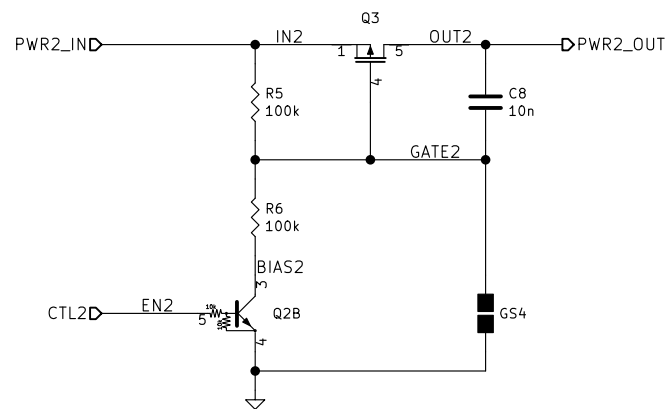
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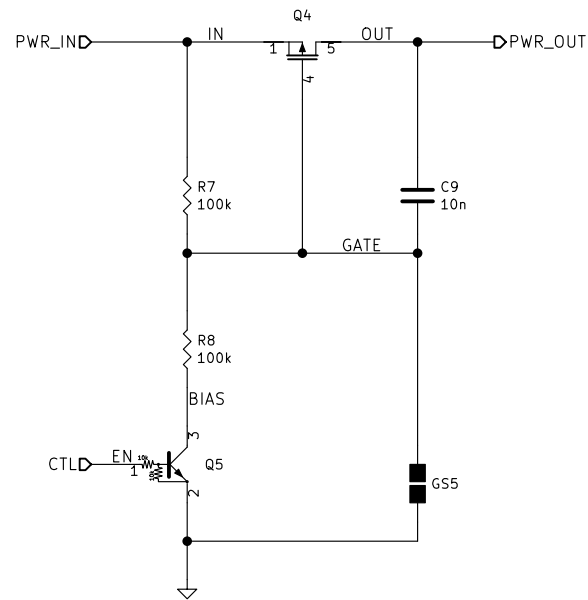
Author: Matt Voll  
Date: 2016-11-11

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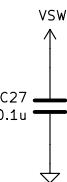
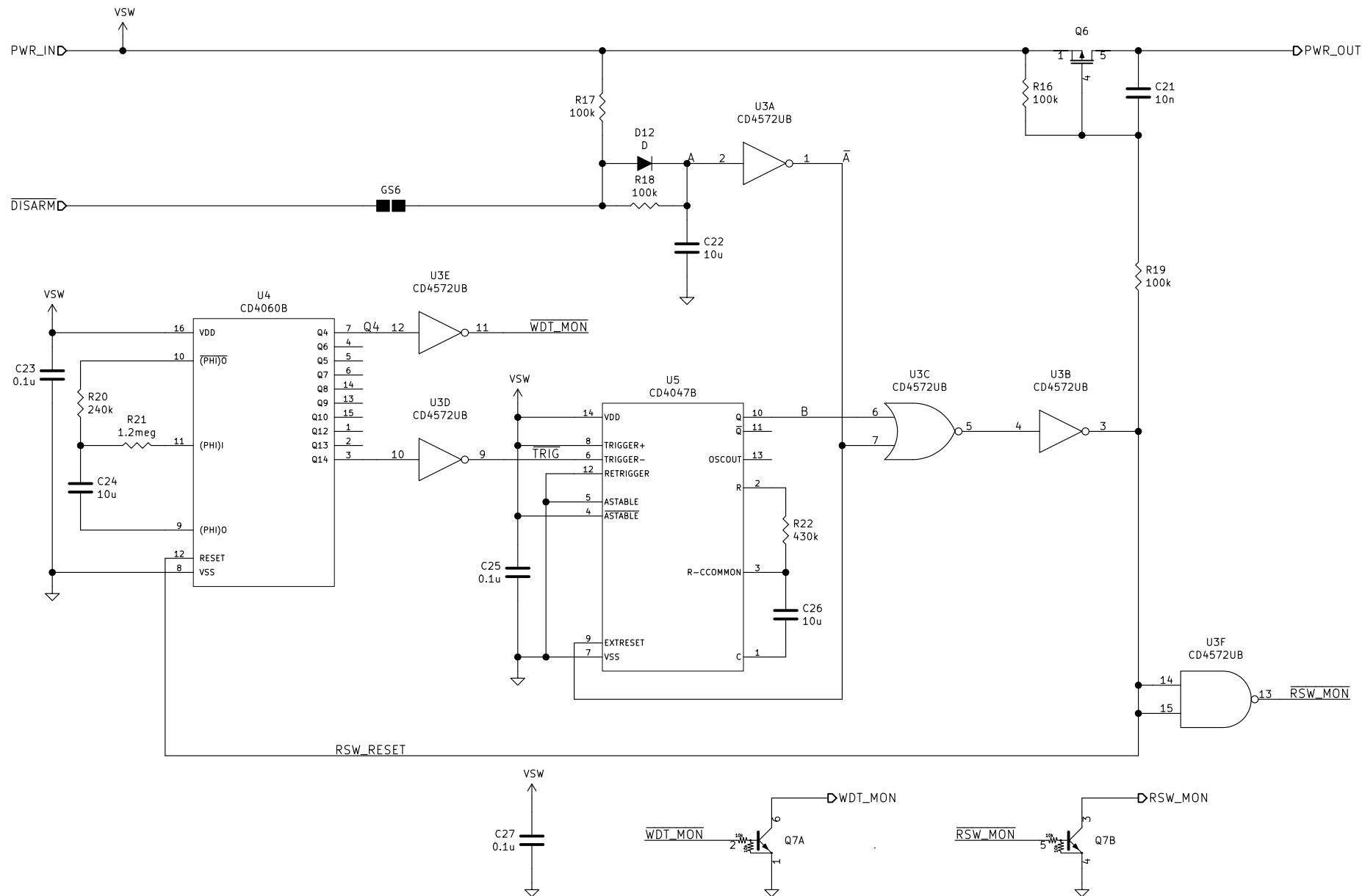
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Sheet: /POWER\_OUT/DEP\_SWITCH/  
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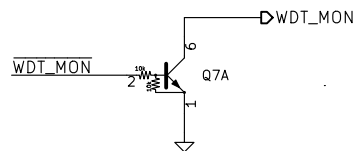
Author: Matt Voll  
Date: 2016-11-06

Bus Switch  
Rev: 2  
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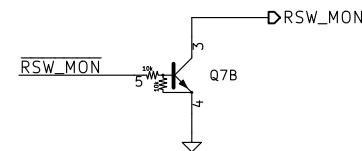




\* Place next to U3 VDD pin



\* WDT\_MON and RSW\_MON pullup resistors are on FILTERS sheet



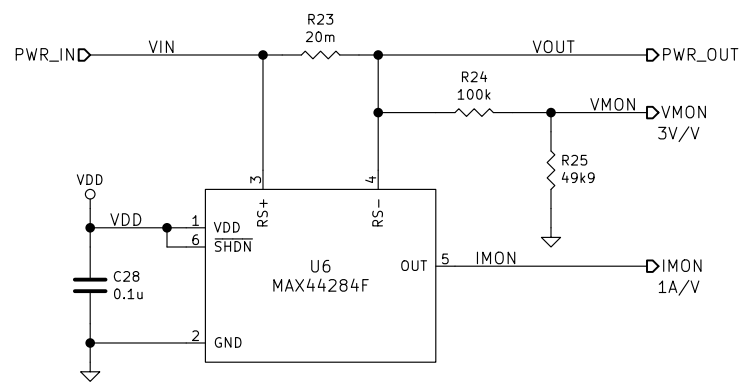
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Phoenix EPS

12H Watch-Dog Timer and Runswitch

Sheet: /POWER\_OUT/RUNSWITCH/  
File: rsw.sch

Author: Matt Voll  
Date: 2016-11-11

Rev: 2  
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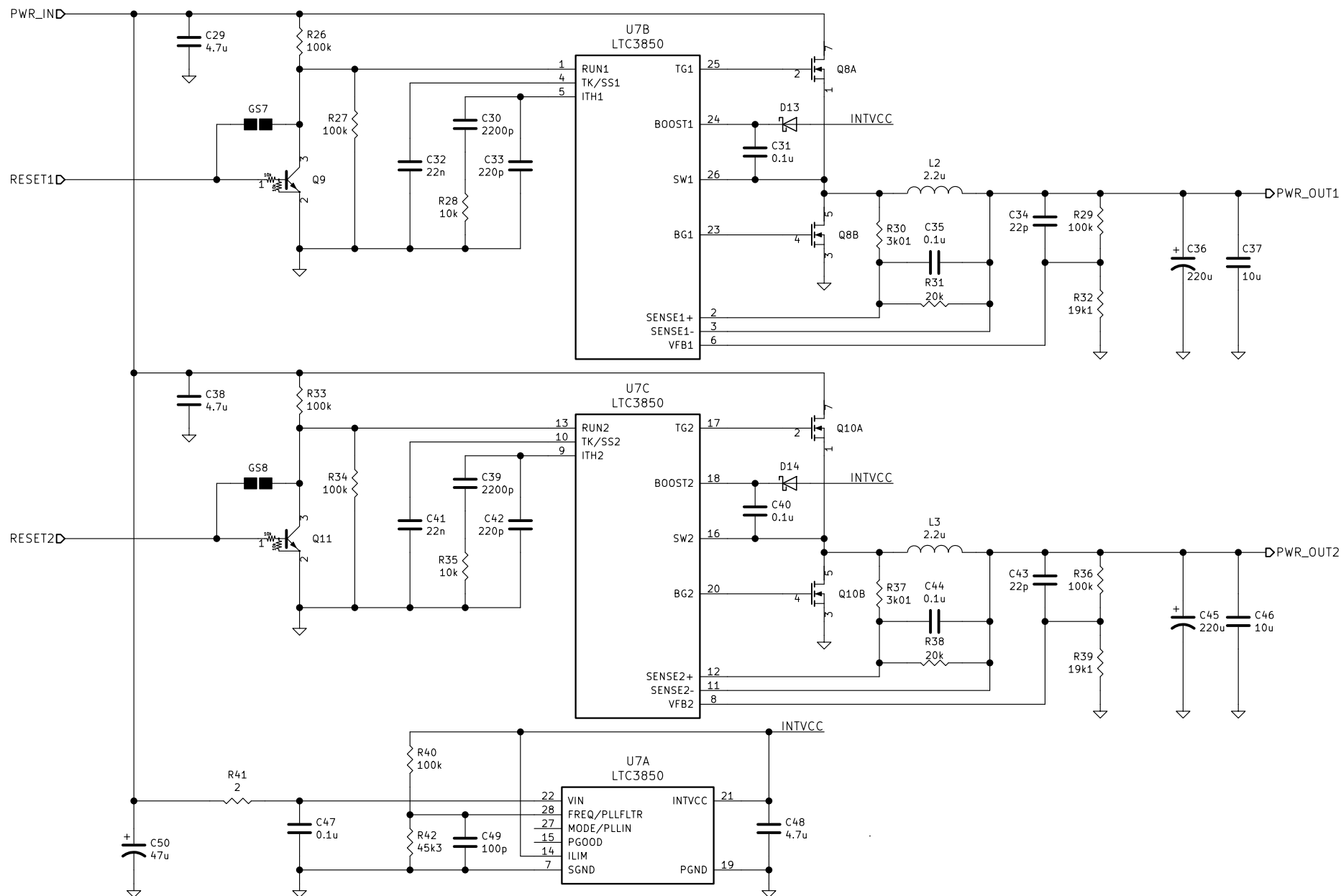
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File: pmon1.sch

Author: Matt Voll  
Date: 2016-11-11

Power Monitor

Rev: 2  
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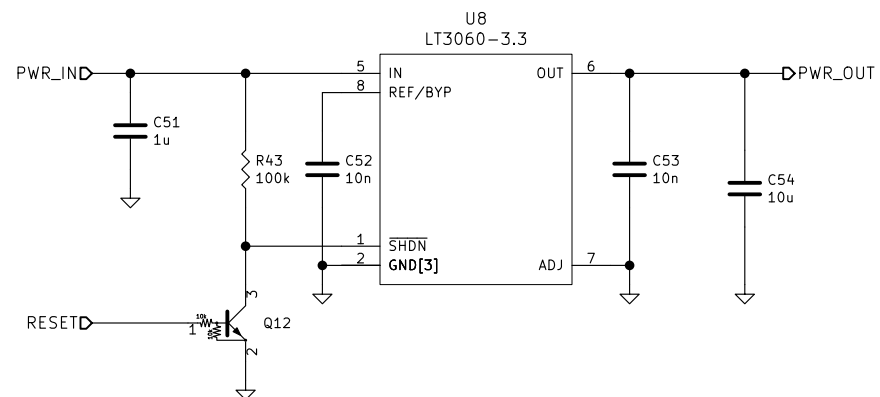
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Phoenix EPS

Sheet: /POWER\_OUT/PL\_REG/  
File: reg2.sch

Dual 5V Buck Converter

Author: Matt Voll  
Date: 2016-11-11

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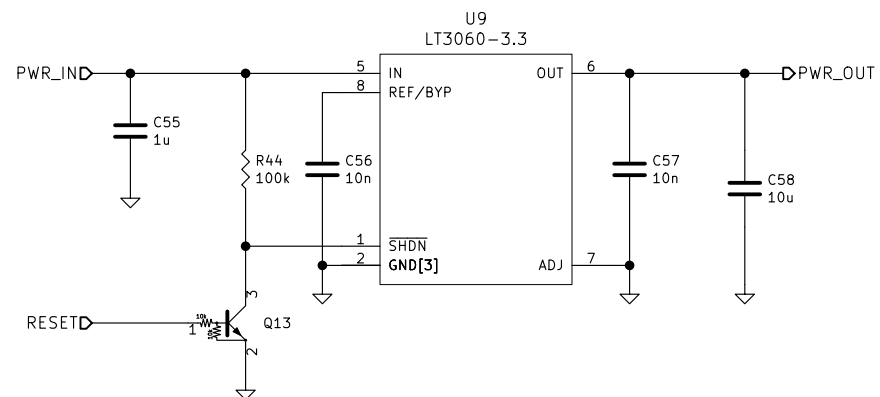
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Phoenix EPS

3.3V LDO Linear Regulator

Sheet: /POWER\_OUT/RTC\_REG/  
File: ldo.sch

Author: Matt Voll  
Date: 2016-11-11

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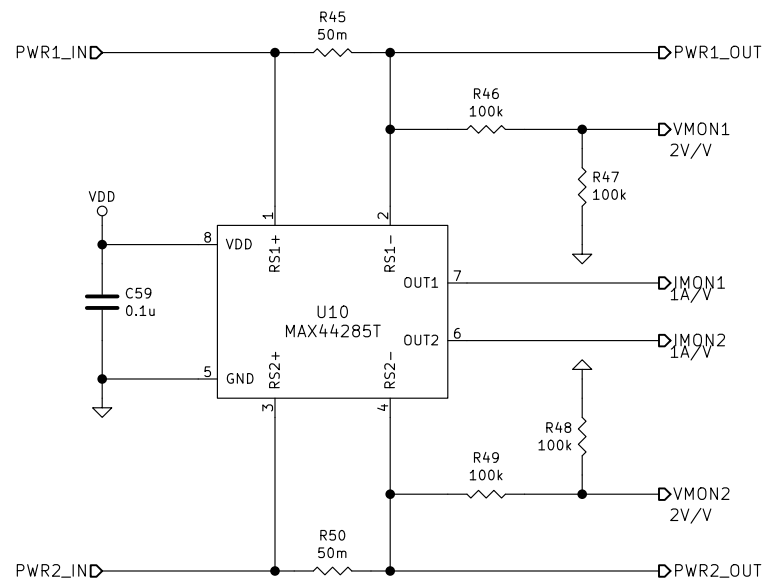
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Sheet: /POWER\_OUT/CSS\_REG/  
File: ldo.sch

3.3V LDO Linear Regulator

Author: Matt Voll  
Date: 2016-11-11

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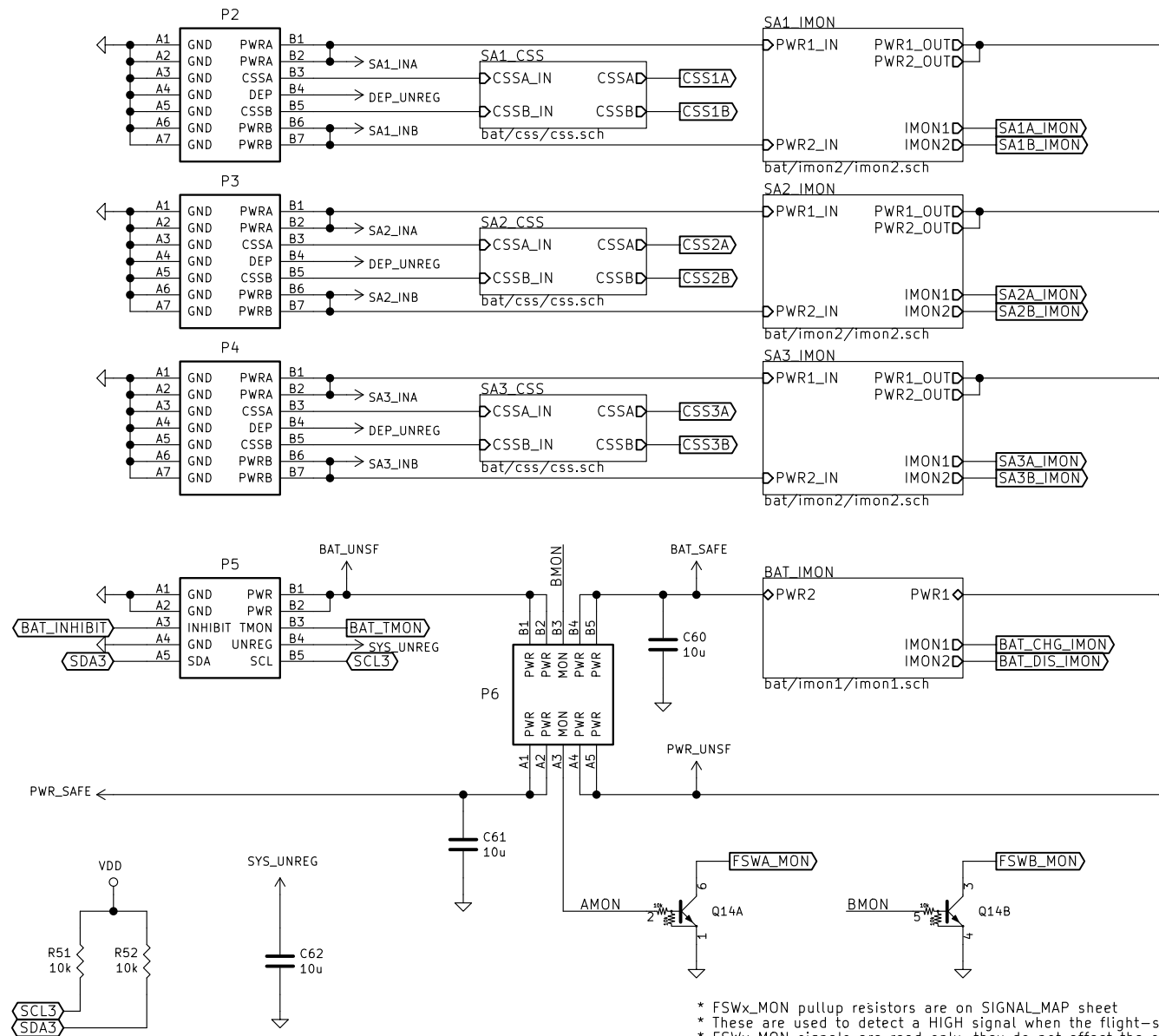
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Sheet: /POWER\_OUT/PL\_MON/  
File: pmon2.sch

Author: Matt Voll  
Date: 2016-11-11

Dual Power Monitor

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- \* FSWx\_MON pullup resistors are on SIGNAL\_MAP sheet
- \* These are used to detect a HIGH signal when the flight-switches are in DEPLOYED state
- \* FSWx\_MON signals are read only, they do not affect the satellite operation



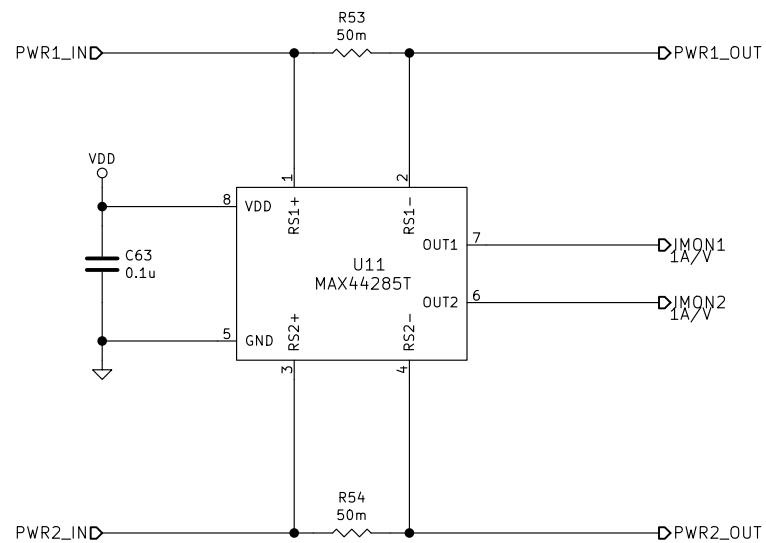
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## Solar Array and Battery Interfaces

Sheet: /POWER\_IN/  
File: bat.sch

Author: Matt Voll  
Date: 2016-11-11

Rev: 3.1  
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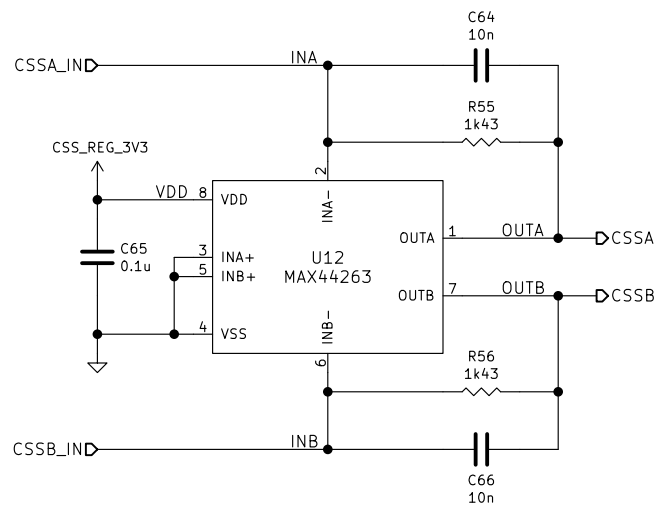
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Phoenix EPS

Dual Current Monitor

Sheet: /POWER\_IN/SA1\_IMON/  
File: imon2.sch

Author: Matt Voll  
Date: 2016-11-11

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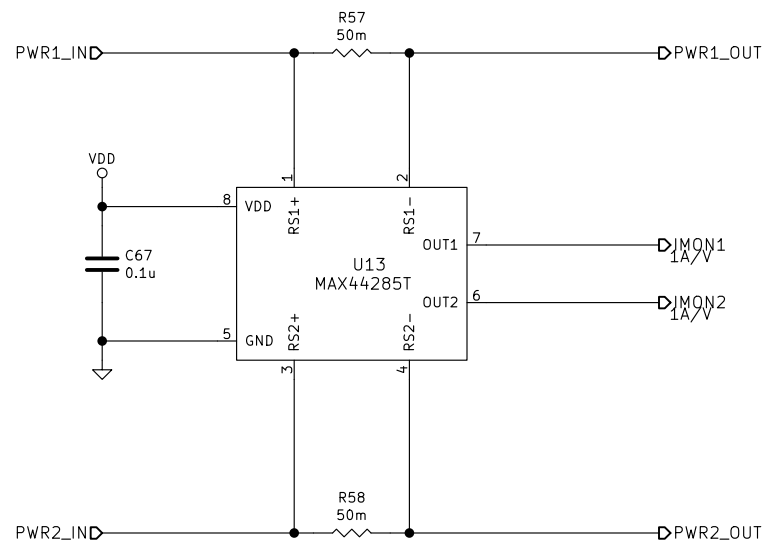
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Phoenix EPS

Dual Sun Sensor Amplifier

Sheet: /POWER\_IN/SA1\_CSS/  
File: css.sch

Author: Matt Voll  
Date: 2016-11-11

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Phoenix EPS

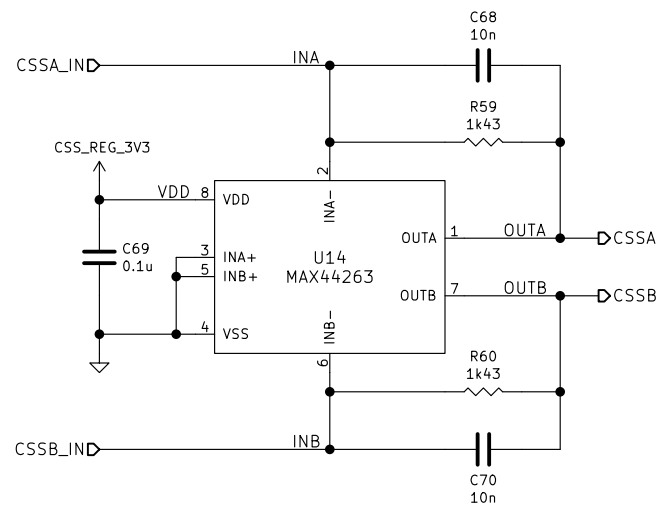
Dual Current Monitor

Sheet: /POWER\_IN/SA2\_IMON/  
File: imon2.sch

Author: Matt Voll  
Date: 2016-11-11

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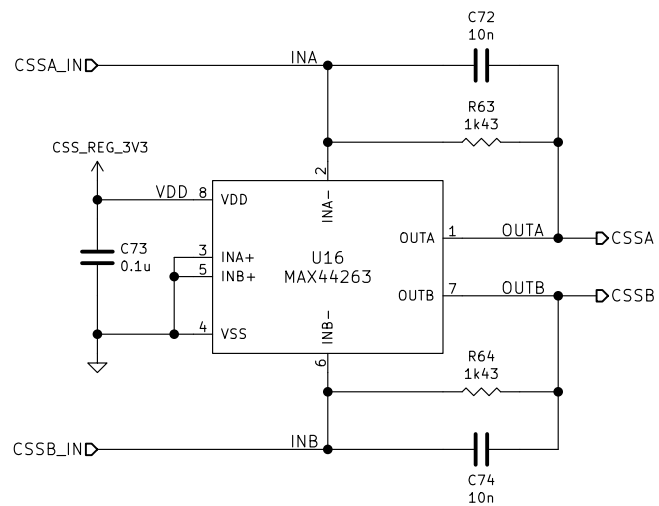


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Sheet: /POWER\_IN/SA2\_CSS/  
File: css.sch

Dual Sun Sensor Amplifier  
Author: Matt Voll  
Date: 2016-11-11  
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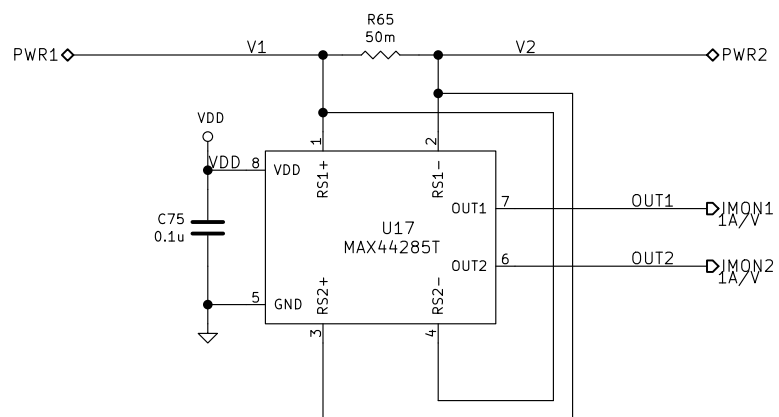




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Phoenix EPS

Sheet: /POWER\_IN/SA3\_CSS/  
File: css.sch

Dual Sun Sensor Amplifier  
Author: Matt Voll  
Date: 2016-11-11  
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Phoenix EPS

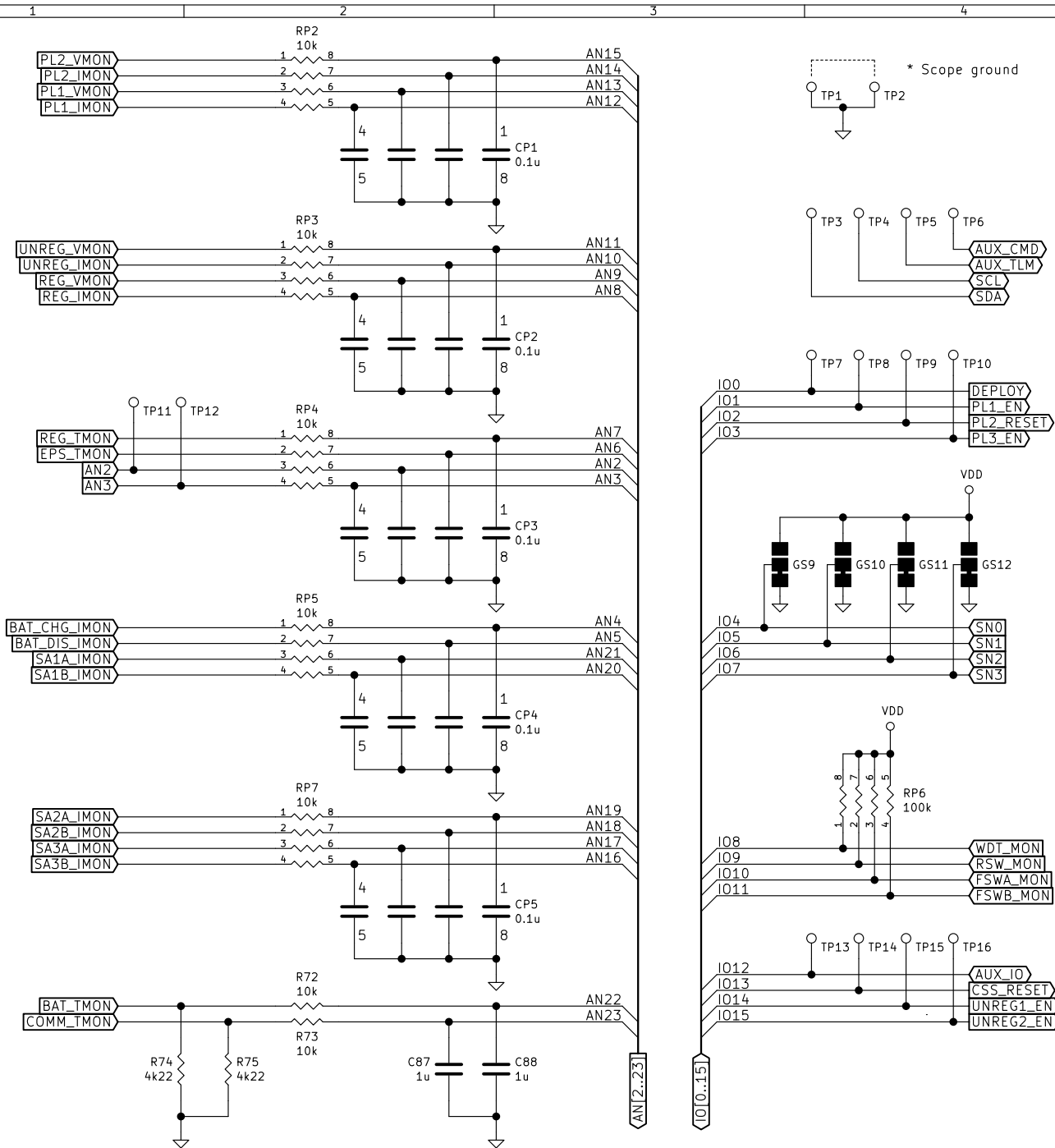
Bi-directional Current Monitor

Sheet: /POWER\_IN/BAT\_IMON/  
File: imon1.sch

Author: Matt Voll  
Date: 2016-11-11

Rev: 2  
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## Space Science & Engineering Lab Phoenix EPS

### Analog/Digital IO's and Test Points

Sheet: /SIGNAL\_MAP/  
File: filters.sch

Author: Matt Voll  
Date: 2016-11-11

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