

6

5

4

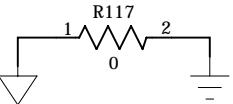
3

2

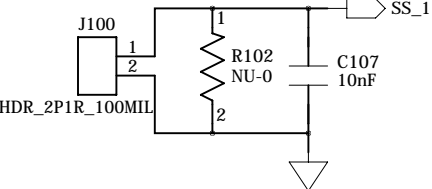
1

Converter 1 - 12V

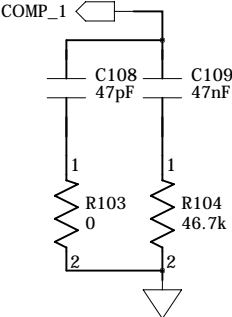
Ground Connection



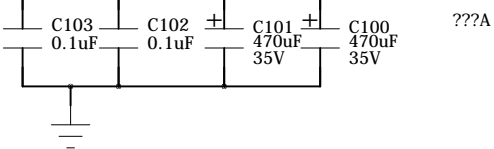
Soft Start



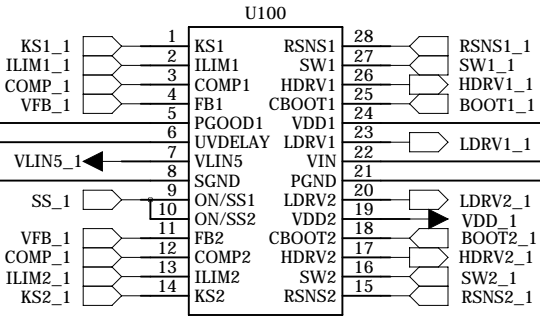
Compensation Network



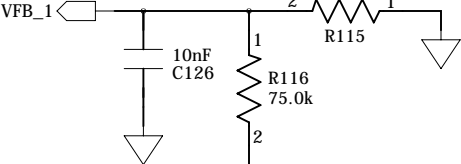
Input Filter



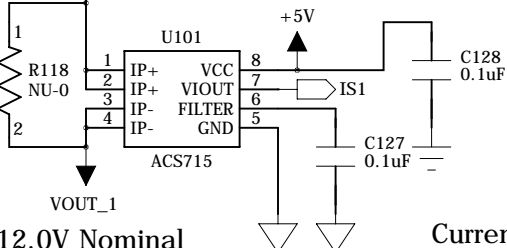
Switching Controller



Voltage Feedback
1.238V Nominal



Current Sensor



Phase 1

Phase 2

12.0V Nominal
10.0A Max

PROJECT: 2011 OSU Mars Rover			
TITLE: Multi-Rail DC-DC Converter			
CODE: U	SIZE: B	DRAWING NO: R-E-03-03	REV: 1
SCALE: 1:1			SHEET: 1 OF 5

*Heatsink all MOSFETS to vertical heatsink assembly with insulating barrier and isolation washers

6

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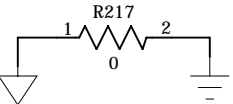
3

2

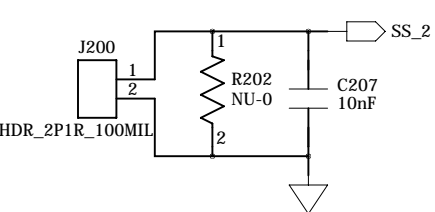
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Converter 2 - 9.6V

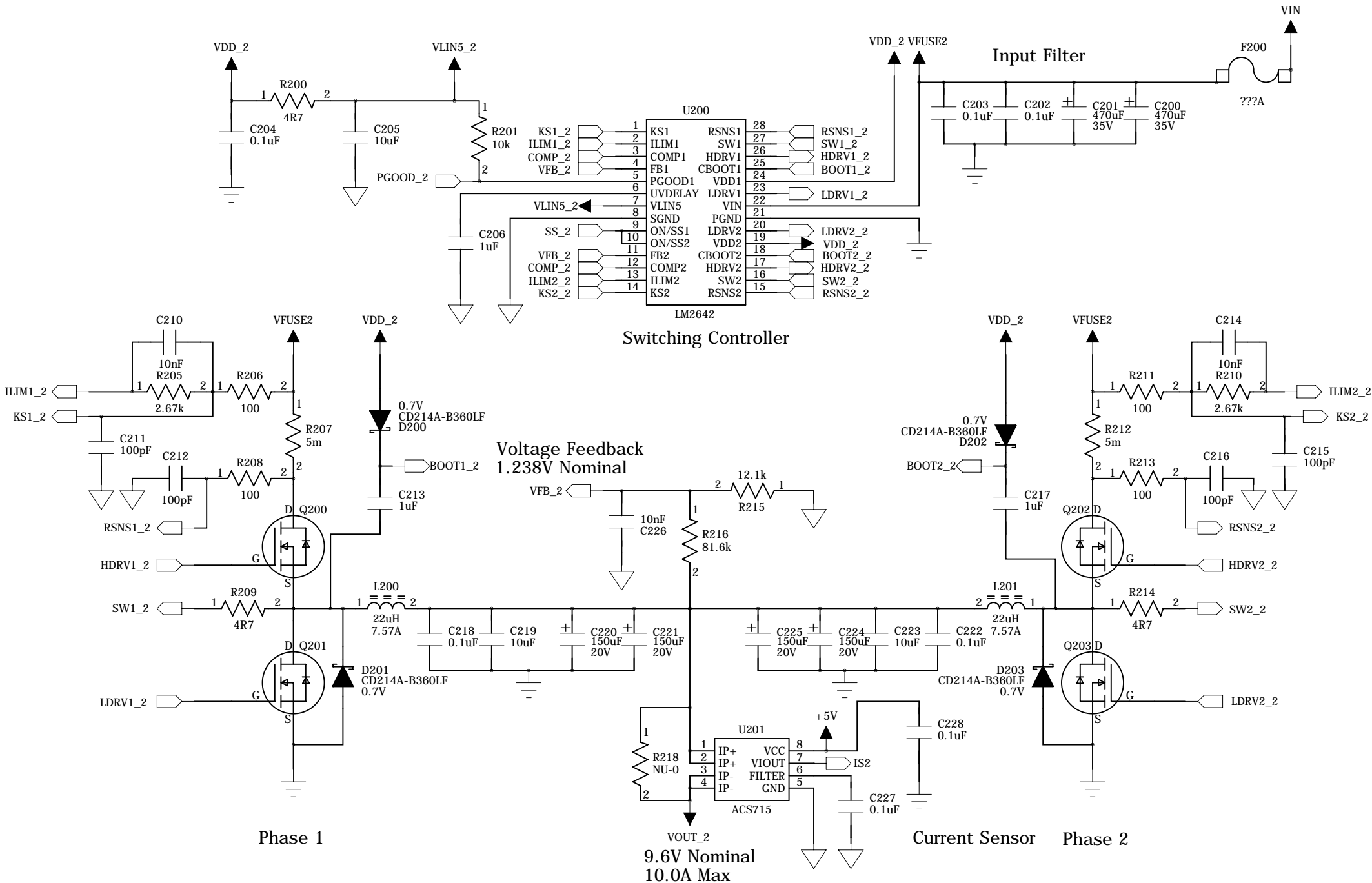
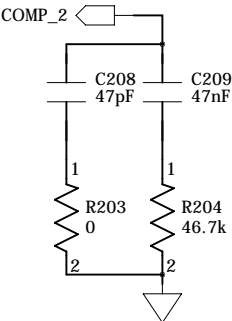
Ground Connection



Soft Start



Compensation Network



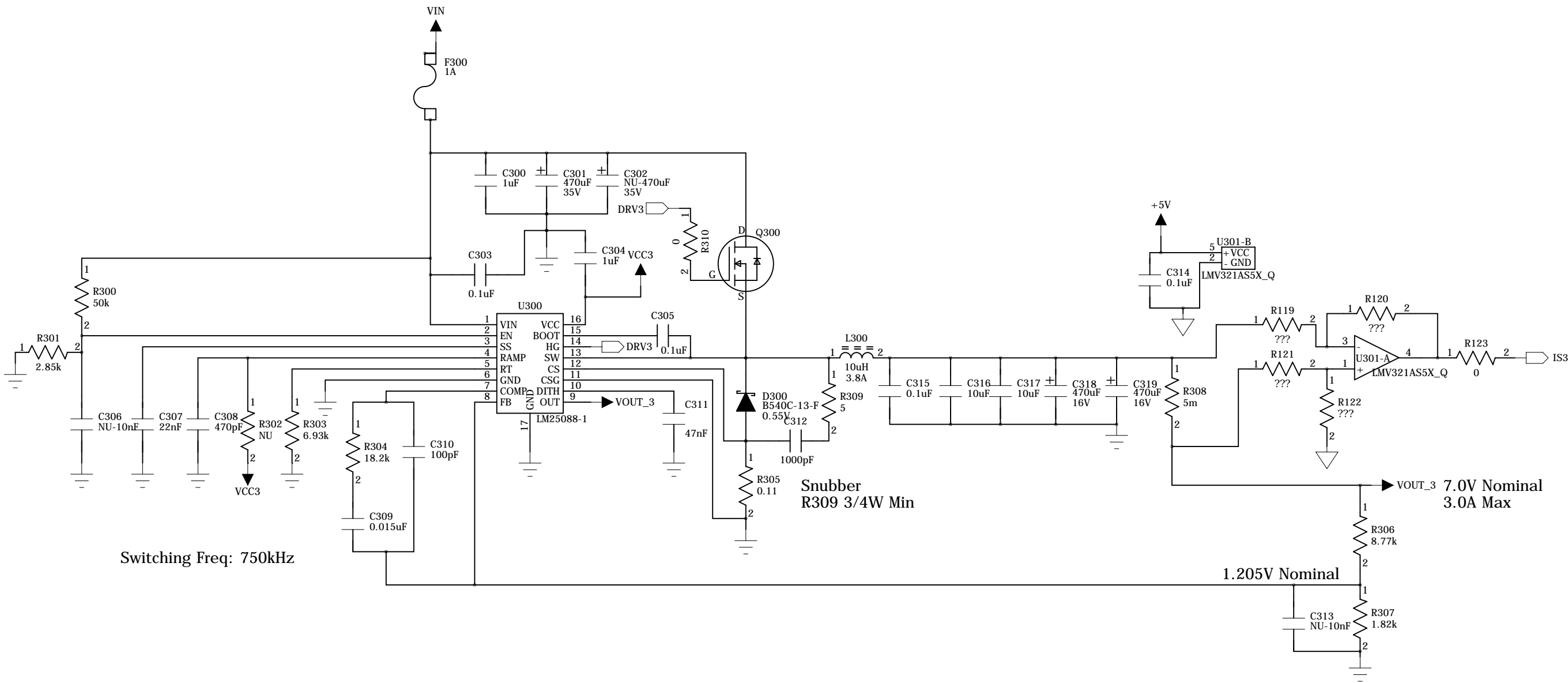
*Heatsink all MOSFETS to vertical heatsink assembly with insulating barrier and isolation washers

DRAWING NO: **R-E-03-03**

SCALE: 1:1

SHEET: 2 OF 5

Converter 3 - 7V



6

5

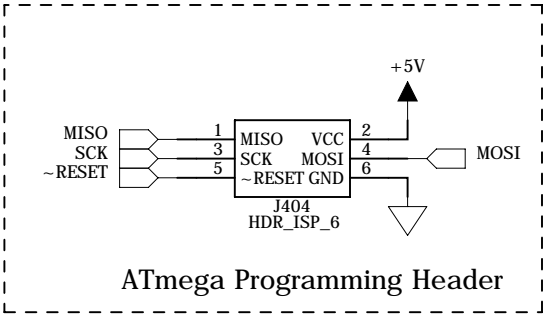
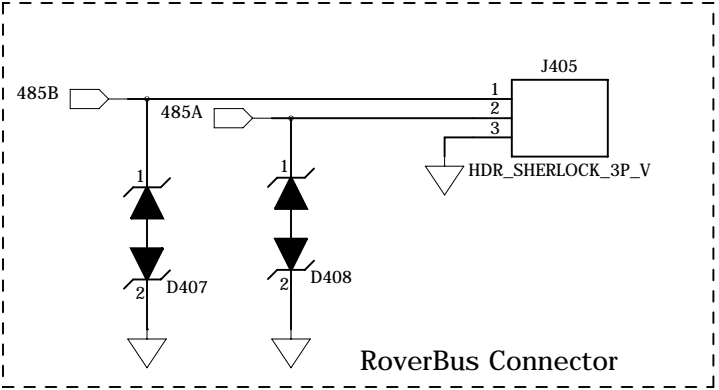
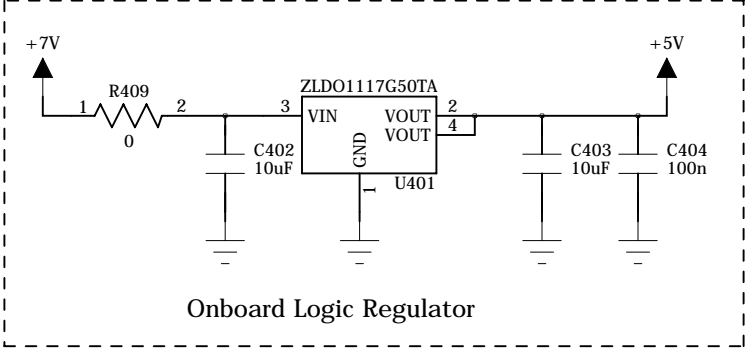
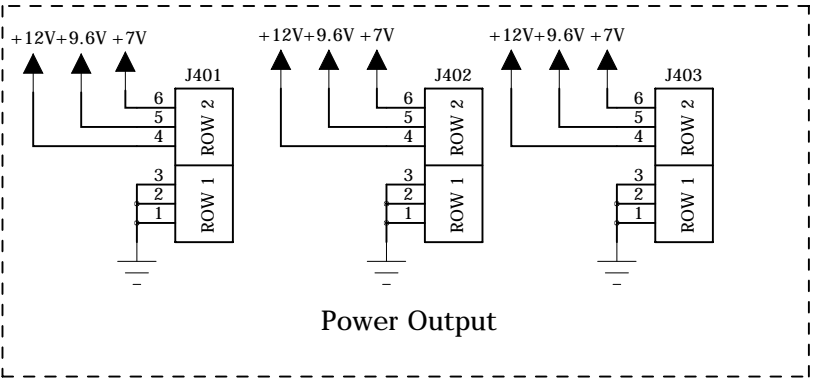
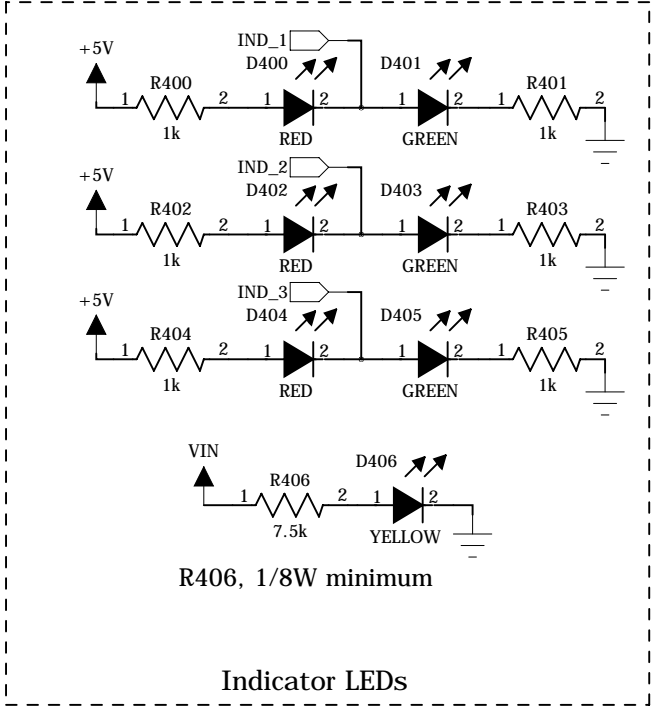
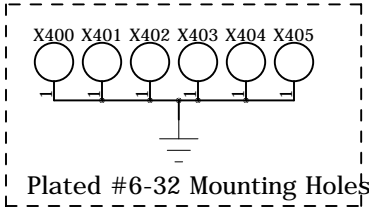
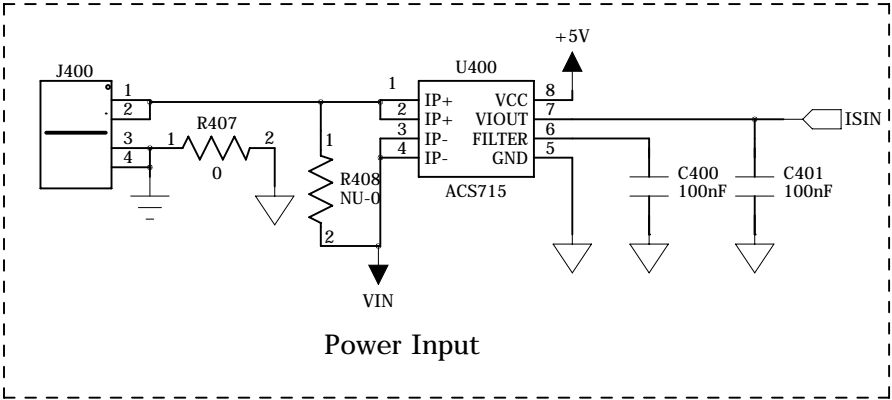
4

3

2

1

Connectors/Indicators/Onboard Power



DRAWING NO: R-E-03-03

SCALE: 1:1

SHEET:4 OF 5

6

5

4

3

2

1

Power Monitor

