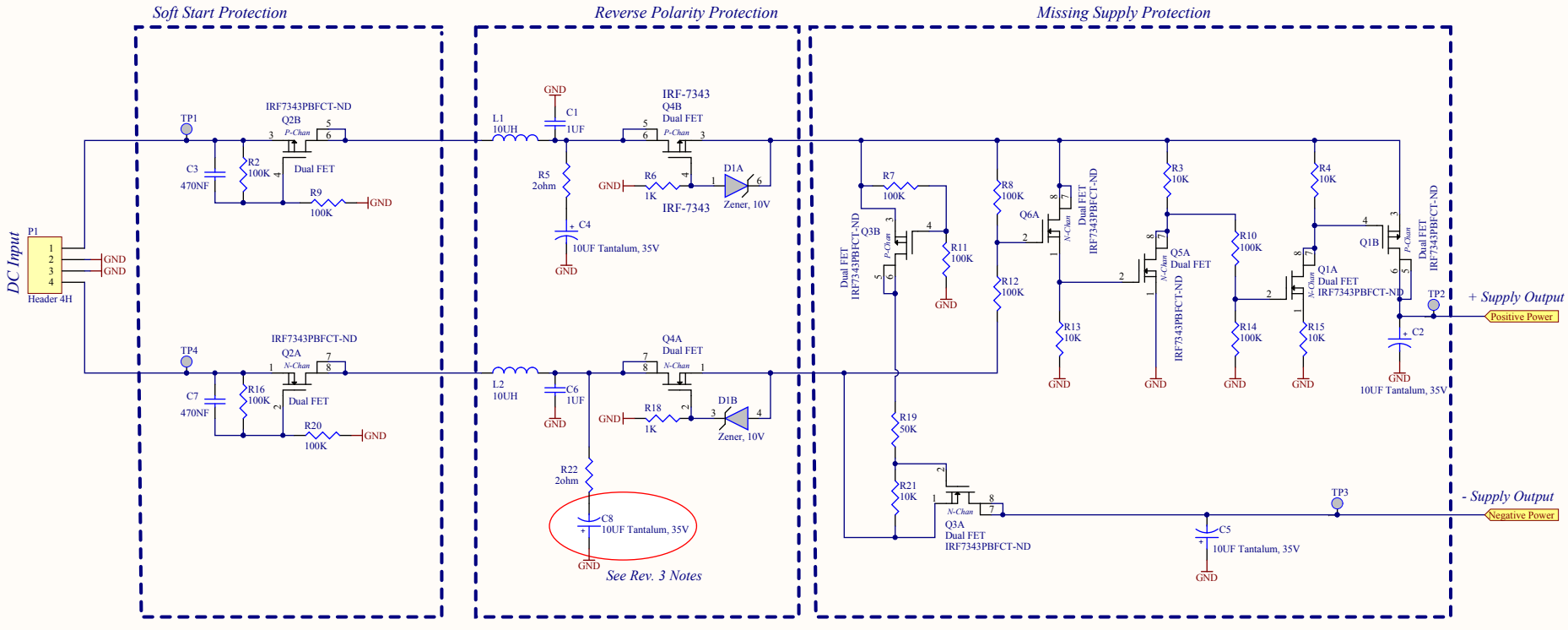
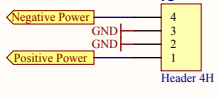


Measured Performance with 20 Ohm Load

Input Voltage (volts)	Output Voltage (volts)	Voltage Drop (volts)	Calculated Current (amps)	Power Disspation in Protection Board (watts)
-9	-8.81	0.19	0.44	0.08
-10	-9.8	0.2	0.49	0.10
-12	-11.83	0.17	0.59	0.10
-16	-15.79	0.21	0.79	0.17
-18	-17.71	0.29	0.89	0.26
-24	-23.71	0.29	1.19	0.34
-26	-25.74	0.26	1.29	0.33
9	8.65	0.35	0.43	0.15
10	9.7	0.3	0.49	0.15
12	11.73	0.27	0.59	0.16
16	15.67	0.33	0.78	0.26
18	17.58	0.42	0.88	0.37
24	23.54	0.46	1.18	0.54
26	25.55	0.45	1.28	0.57

DC Output to Chassis Regulator Board



DC Outputs to Other Chassis Circuitry

Specifications:

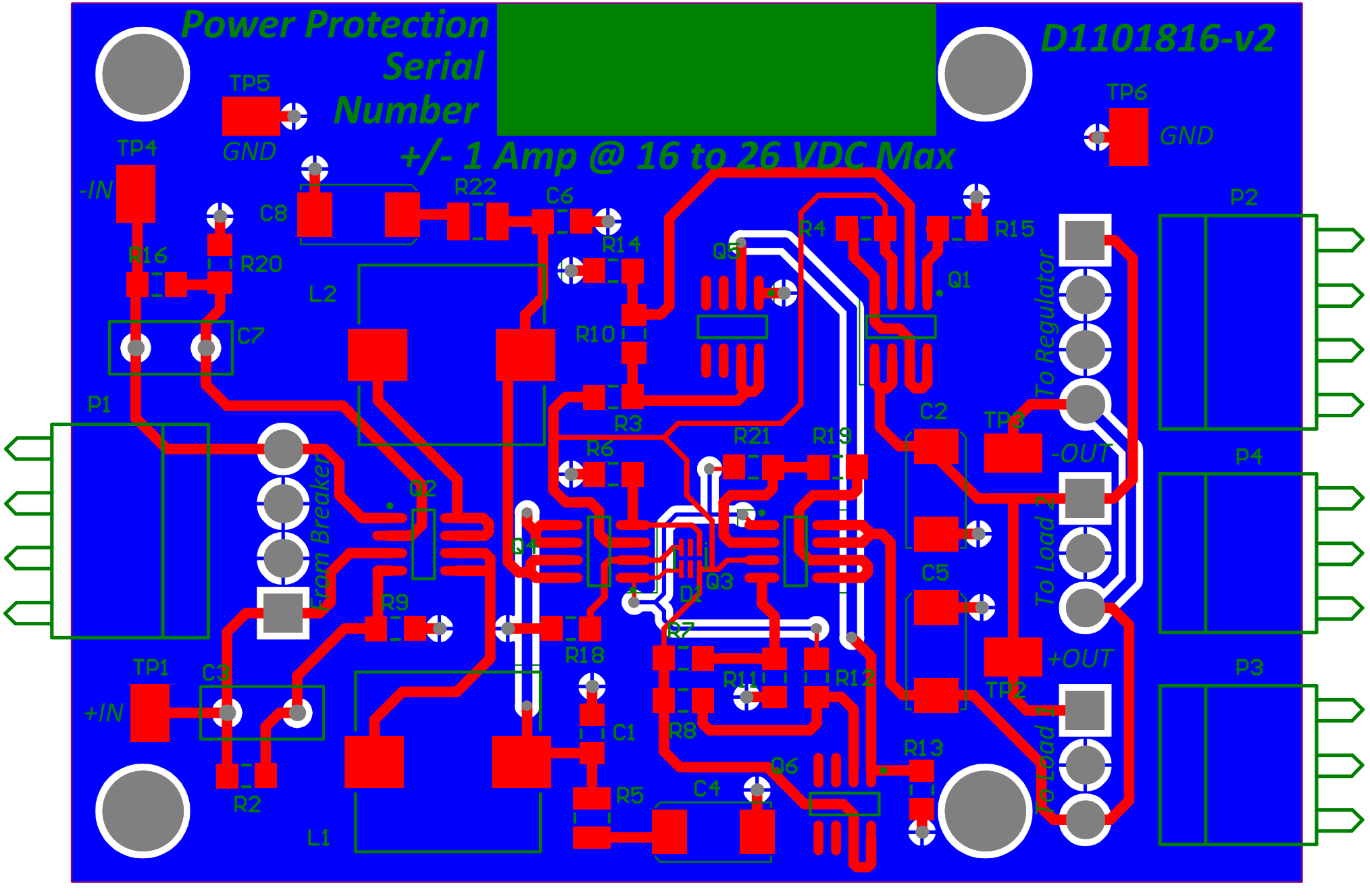
1. Max Input DC Voltage - +/- 26 VDC
2. Max Average Current - +/- 1A DC Continuous
3. Maximum Voltage Drop (input to output) - 0.6 VDC

Revision History:

1. Version 1 - Initial release
2. Version 2 - Changed the order of stages for better operation. Reduced the maximum current allowed from 2 amperes to 1 ampere
3. Version 3 - Noticed C8 is actually in backwards on the version 2 schematic and circuit board. Version 3 correctly depicts the capacitor as it should be, but the board is still wrong. The board should be fixed prior to making more of these. Consider addition of e-fuse circuitry for a complete solution.

Last Edited: 6 Jan 2012

Title: **Power Supply Protection Circuit**			LIGO Laboratory, California Institute of Technology, Massachusetts Institute of Technology	LIGO
Size: B	DCC Number: D1101816	Revision: v3	Engineer: R. Abbott	Date: 2/3/2017
File: C:\Rich's Files\Mycadfiles\ISC\PowerProtector\Power Protector v2\DC power.SchDoc				Time: 5:25:47 PM
				Sheet 1 of 1


Power Protection
Serial
Number
D1101816-v2
+/- 1 Amp @ 16 to 26 VDC Max
TP5
GND
TP6
GND
TP4
-IN
TP1
+IN
TP3
-OUT
TP2
+OUT
P1
P2
P3
P4
C8
R22
C6
R14
R4
R15
Q5
Q1
R16
R20
L2
C7
R10
R3
R6
R21
R19
C2
Q2
Q4
Q3
D1
R7
R9
R18
C5
R11
R12
R8
C3
C1
R13
Q6
R2
R5
C4
L1
From Breaker
To Regulator
To Load 2
To Load 1