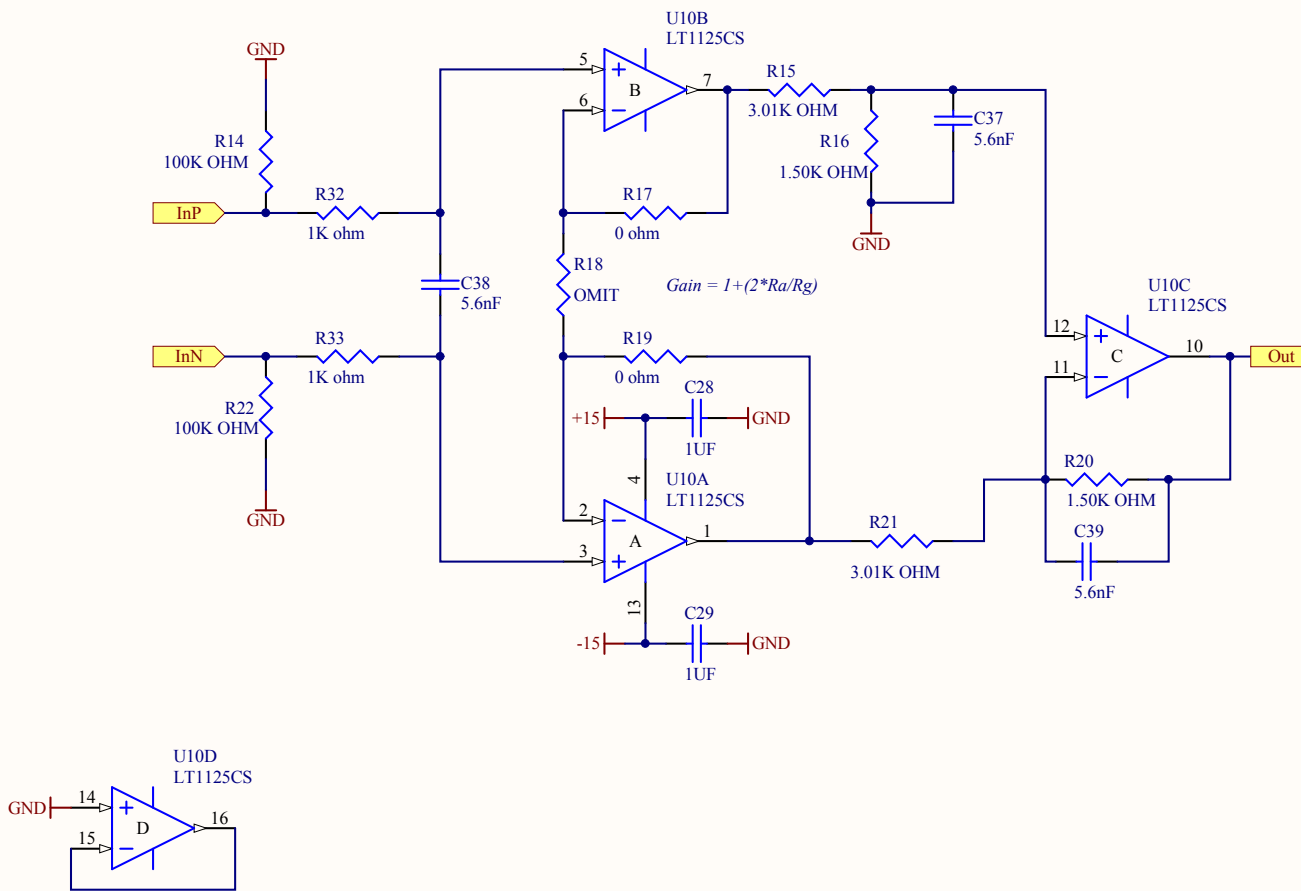


Revision History:
 Rev1 - Initial release, festooned with problems, trashed. PCB mysteriously turned version 2. Threw away PCB.
 Rev2 - First actual functioning prototype.
 Rev3 - Fixed missing VCC to DG412 on pin 12. Used wider footprint for R31 in logic section. Grounded pins 2, 7, 10, and 15 on U14 and U15 as they were pulling to the wrong voltage. Removed C34 and C35 as they are no longer needed. Added +15 on J2 for Optical Lever PD head power.
 Rev4 - A schematic change due to BOM error and a tendency to slow rate limit on noise.
 R1 changed from 1.58k to 15.0k
 R2 changed from 124 ohms to 1.58k
 C4 changed from 4.7µF to 100µF

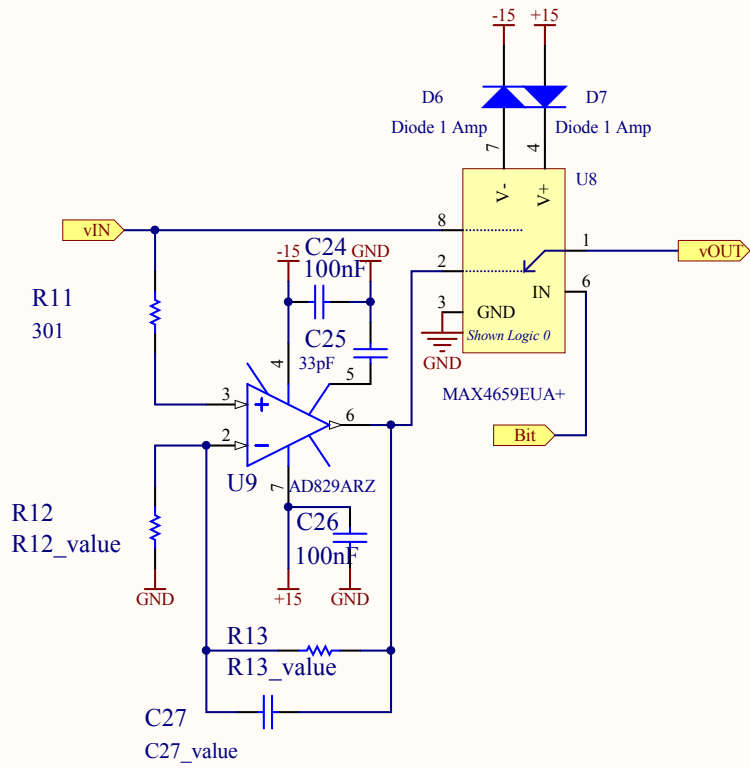
aLIGO ISC Whiting Filter		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO
Site: C	DCC Number: D1001530	SCH / PCB Revision: v4	Engineer: R. Abbott	Date: 5/31/2011
File: C:\Rex\Files\Msc\diff\ISC\ISC_Whiting_Board\icwhite_v3\white_top.SchDoc				Time: 8:53:32 AM
				Sheet 1 of 6

1 as Edited.



Last Edited:

Title		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO
Differential Receiver				
Size: A	DCC Number: D1001530	Revision: v4	Engineer: R. Abbott	Date: 5/31/2011
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				Sheet 2 of 6

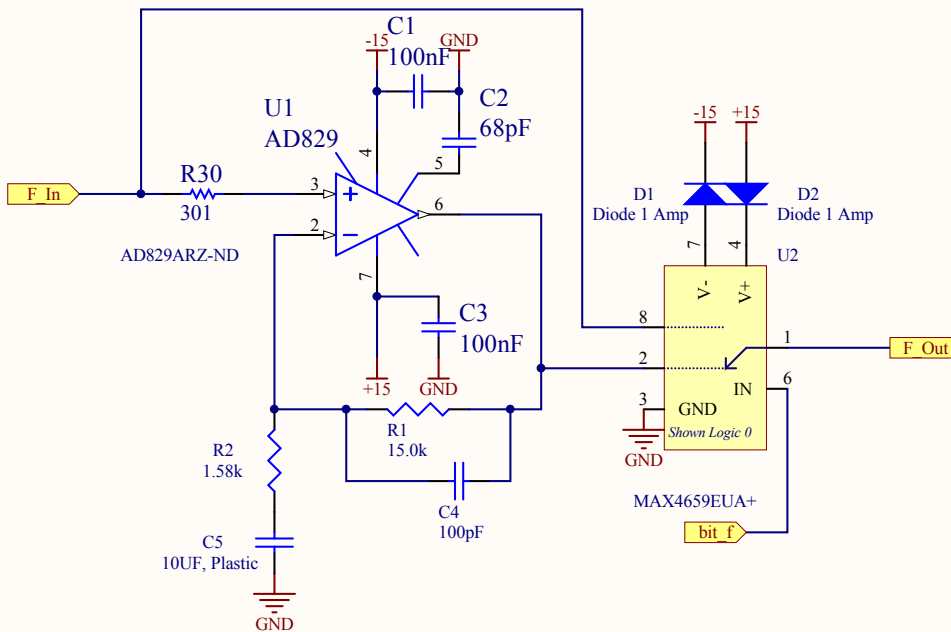


Last Edited:

Title Variable Gain Stage		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		Date: 5/31/2011 Time: 8:55:32 AM
Size: A	DCC Number: D1001530	Revision: v4	Engineer: R. Abbott	
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				Sheet 3 of 6

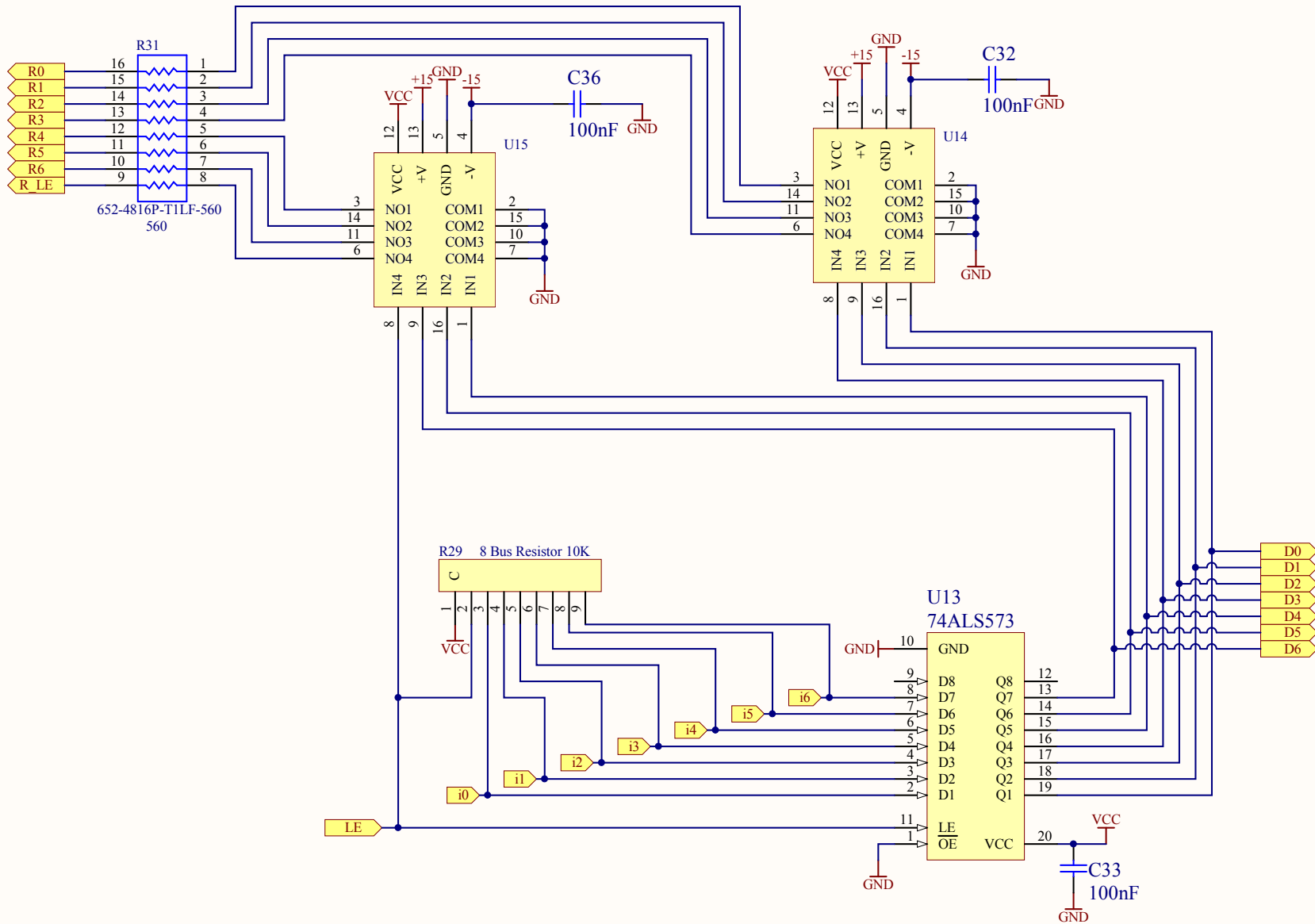


Zero @ 1Hz, Pole @ 10Hz

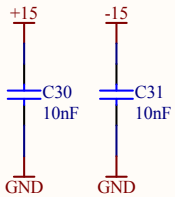
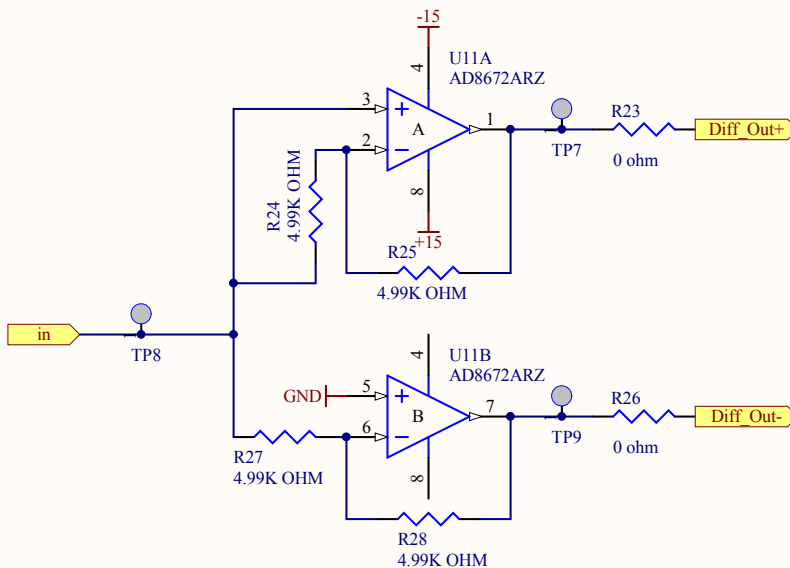


Last Edited:

Title Zero-pole Stage		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: A	DCC Number: D1001530	Revision: v4	Engineer: R. Abbott	Date: 5/31/2011	
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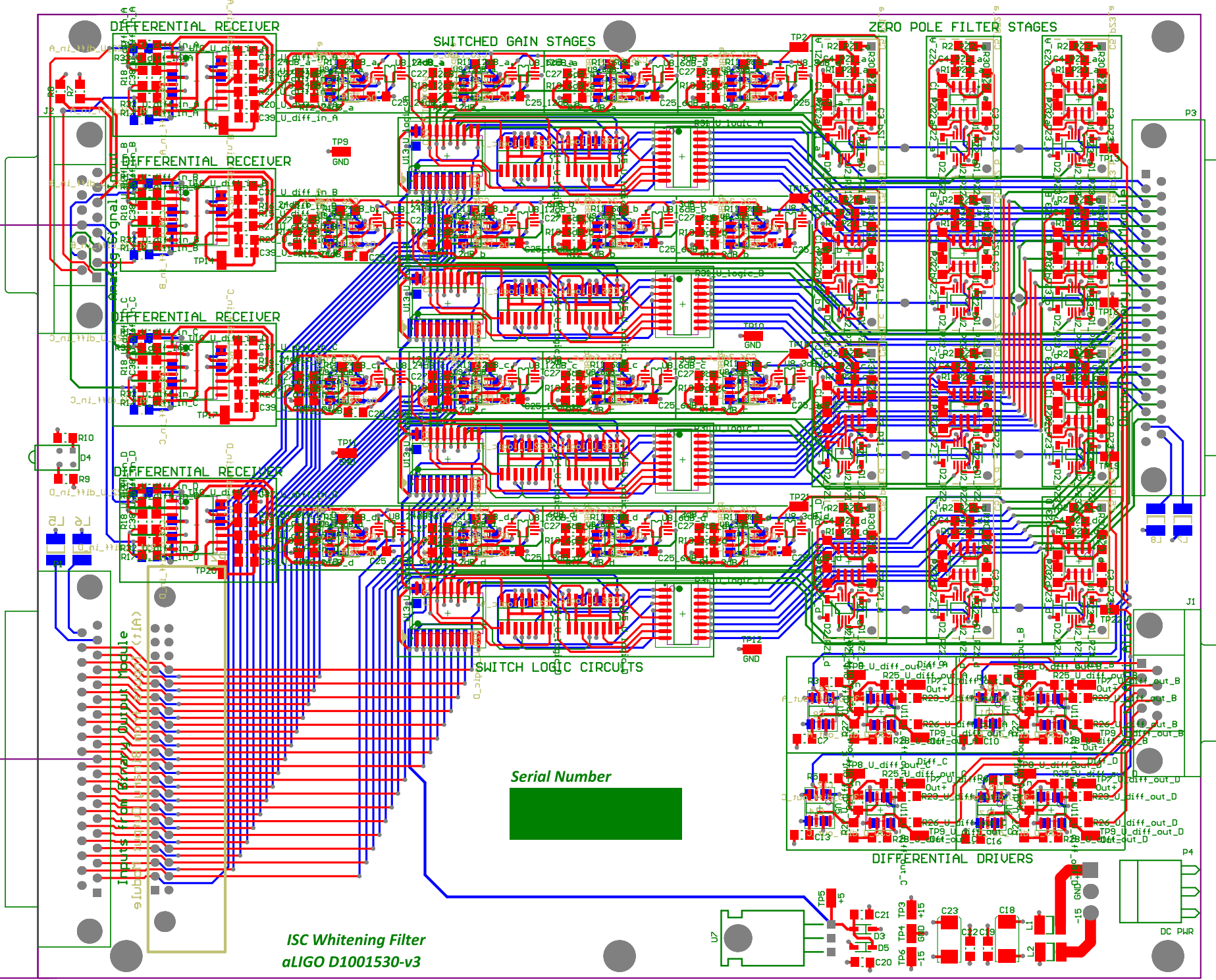
Title		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		Last Edited:	
Switch Logic Circuit					
Size: A	DCC Number: D1001530	Revision: v4	Engineer: R. Abbott	Date: 5/31/2011	
File: C:\Rich's Files\Mycadfiles\ISC\ISC Whitening Board\iscwhite_v3\logic.SchDoc				Time: 8:55:32 AM	Sheet 5 of 6



Last Edited:

Title Differential Driver		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: A	DCC Number: D1001530	Revision: v4	Engineer: R. Abbott	Date: 5/31/2011	
File: C:\Rich's Files\Mycadfiles\ISC\ISC Whitening Board\iscwhite_v3\diff_out.SchDoc				Time: 8:55:32 AM	Sheet 6 of 6

3879.00
1591.00



DIFFERENTIAL RECEIVER

SWITCHED GAIN STAGES

ZERO POLE FILTER STAGES

DIFFERENTIAL RECEIVER

DIFFERENTIAL RECEIVER

DIFFERENTIAL RECEIVER

SWITCH LOGIC CIRCUITS

DIFFERENTIAL DRIVERS

Serial Number

ISC Whiting Filter
aLIGO D1001530-v3

DC PHR