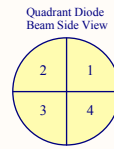
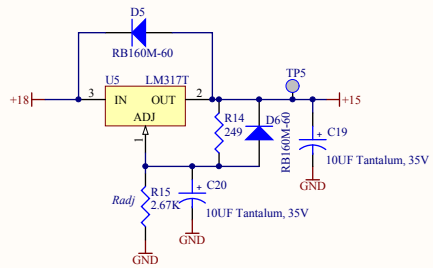
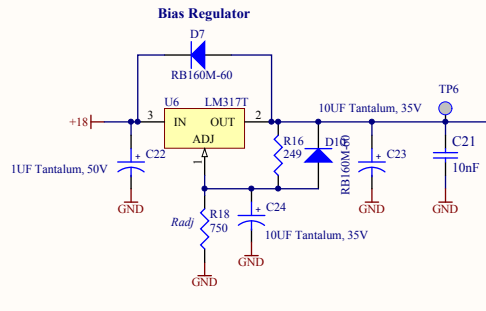


Main Interface for DC Signals and Power

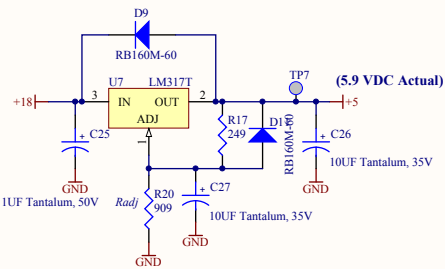


Quadrant Diode Beam Side View

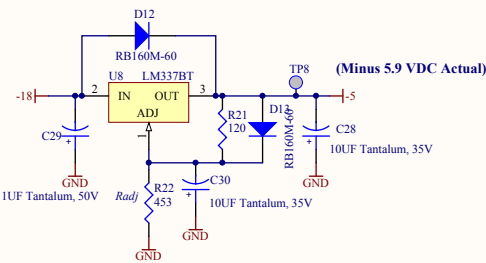


Bias Regulator

4 Quadrant Photodiode

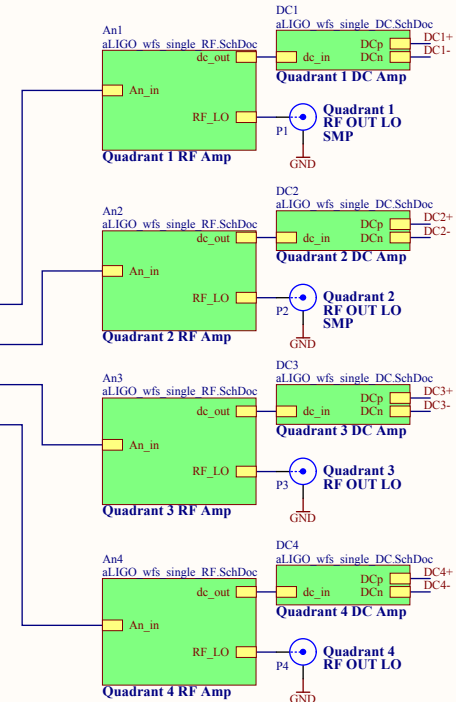
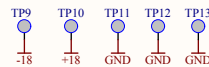


(5.9 VDC Actual)



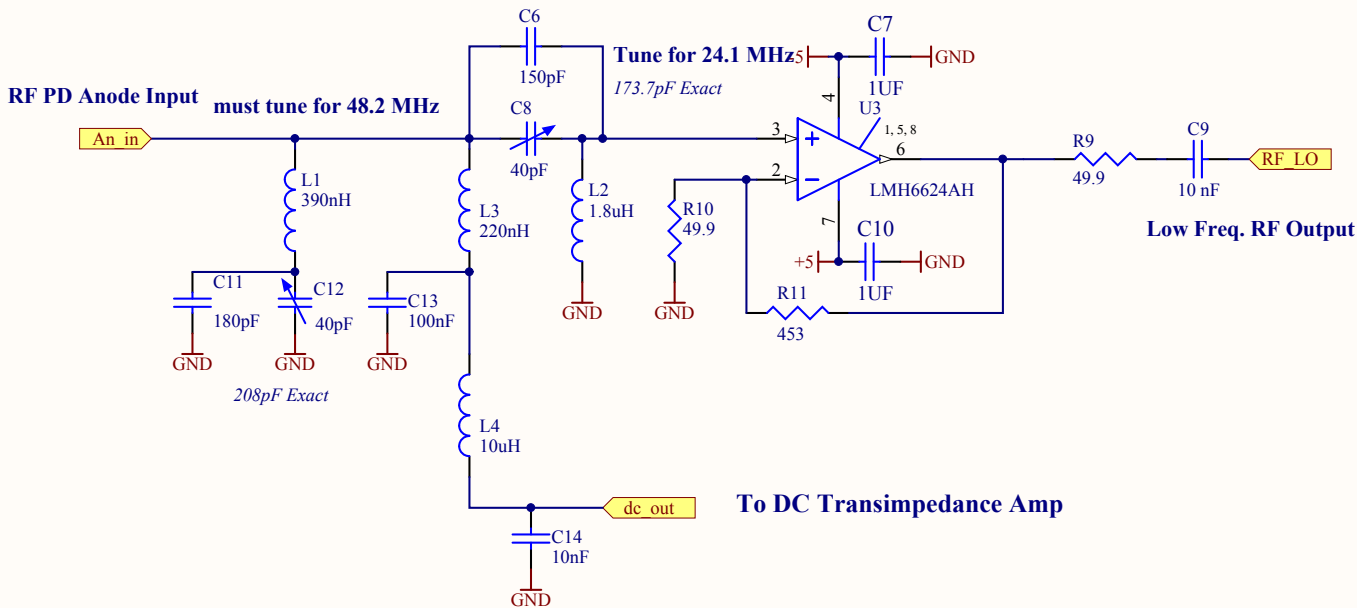
(Minus 5.9 VDC Actual)

Voltage Regulator Equations	
LM337	$V_o = -1.25(1 + \text{Radj}/120) + (50\mu\text{A} * \text{Radj})$
LM317	$V_o = 1.25(1 + \text{Radj}/249) + (100\mu\text{A} * \text{Radj})$



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Title aLIGO ASC RF Photodetector		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: B	DCC Number: D1200066	Revision: v1	Engineer: R. Abbott	Date: 3/23/2012	Time: 3:35:55 PM
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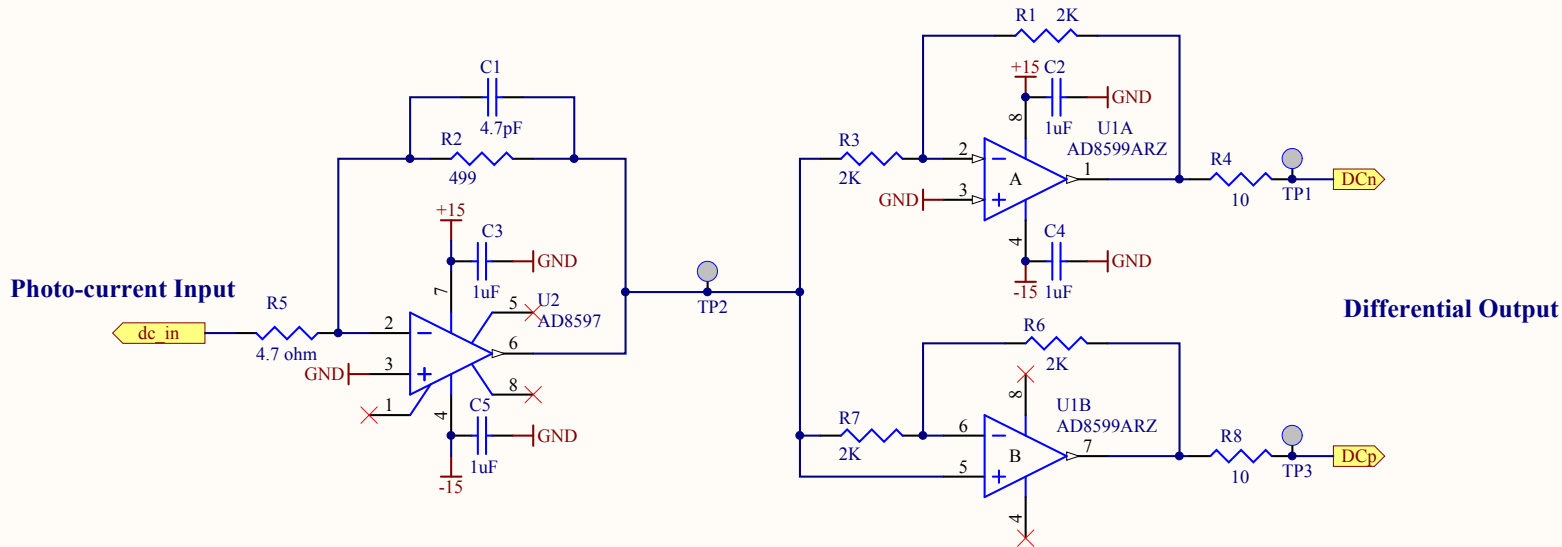
9/45 Design Corresponds to: C:\Rich's Files\LT Spice\PhotodiodeAnalysis\lsc_rfpds\alIGO_ASC_2011\9_45_ASC_v3.asc

See page 13 of the following for signal levels
<https://dcc.ligo.org/DocDB/0012/T1000298/002/lscfdd.pdf>

Last Edited:

Title RF Section		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: A	DCC Number: D1200066	Revision: v1	Engineer: R. Abbott	Date: 3/23/2012	
File: C:\Rich's Files\Mycadfiles\ISCA\DL_RFPD\2012_alIGO_WFS_Single\alIGO_wfs_single_RF.SchDoc				Time: 3:35:55 PM	Sheet 2 of 3

DC Transimpedance Amp (15mA Maximum Photo-current)



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Title DC Section		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		
Size: A	DCC Number: D1200066	Revision: v1	Engineer: R. Abbott	Date: 3/23/2012
File: C:\Rich's Files\Mycadfiles\ISCA\AdL_RFPD\2012_aLIGO_WFS_Single\aligo_wfs_single_DC.SchDoc				Time: 3:35:55 PM
				Sheet 3 of 3

