

FIDUCIAL_ 1MM



x1

FIDUCIAL_ 1MM



x2

FIDUCIAL_ 1MM



x3

FIDUCIAL_ 1MM



x4

FIDUCIAL_ 1MM



x5

FIDUCIAL_ 1MM



x6

FIDUCIAL_ 1MM



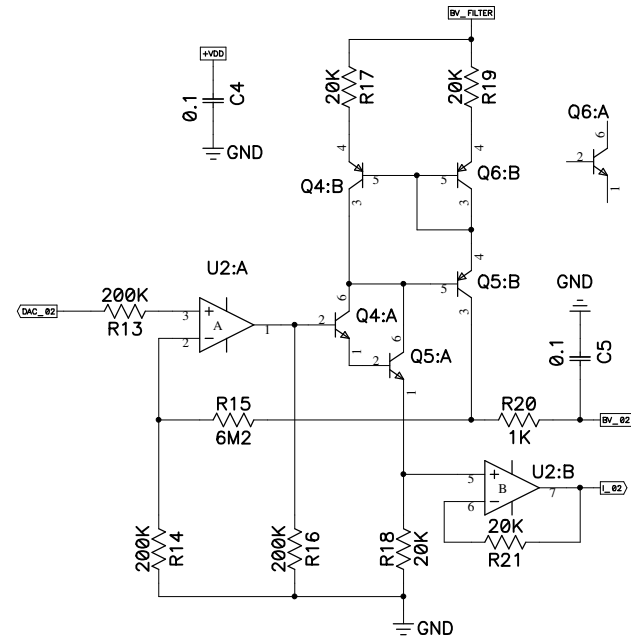
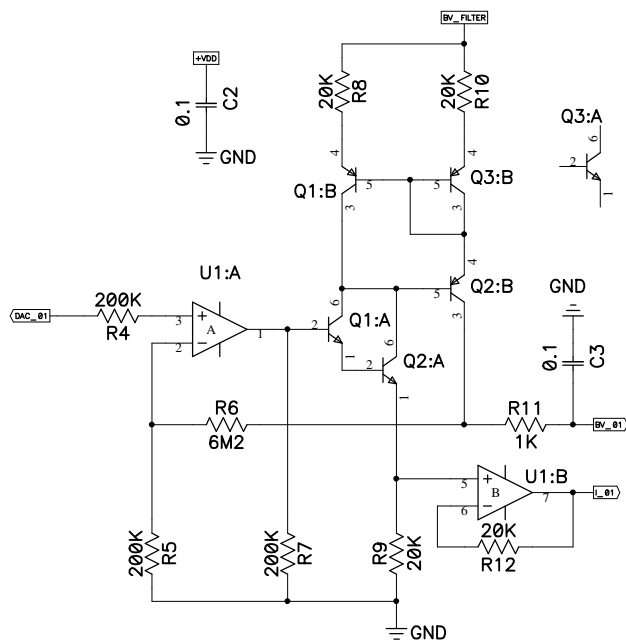
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FIDUCIAL_ 1MM



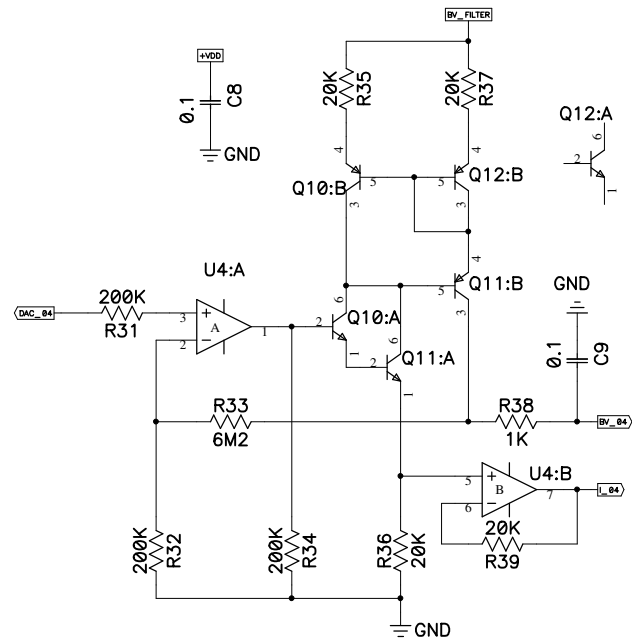
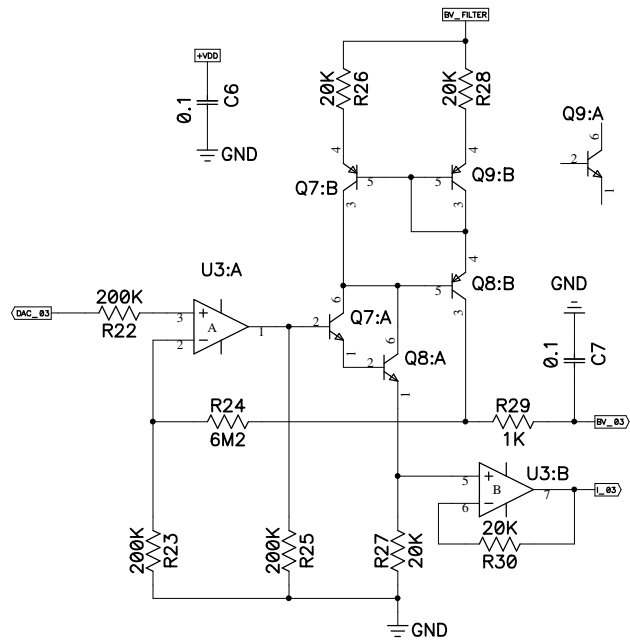
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Drawn	S. Los	
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Approved		
 FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY		
Title Input_ Output HB_ SiPM_ 24-ch_ Control		
Size	Drawing Number {Drawing Number} 24Ch_ SeaQuest_ Control_ Feb23_ 2017.SCH	Rev {Revision}
Filename	Sheet 1 of 17	

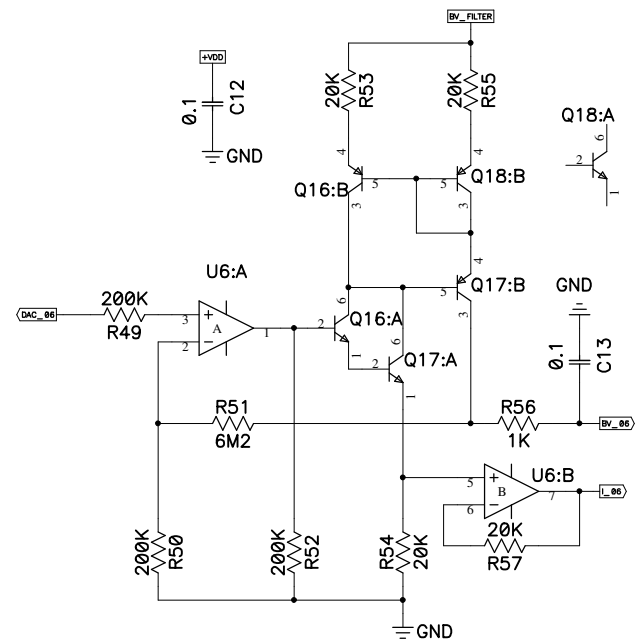


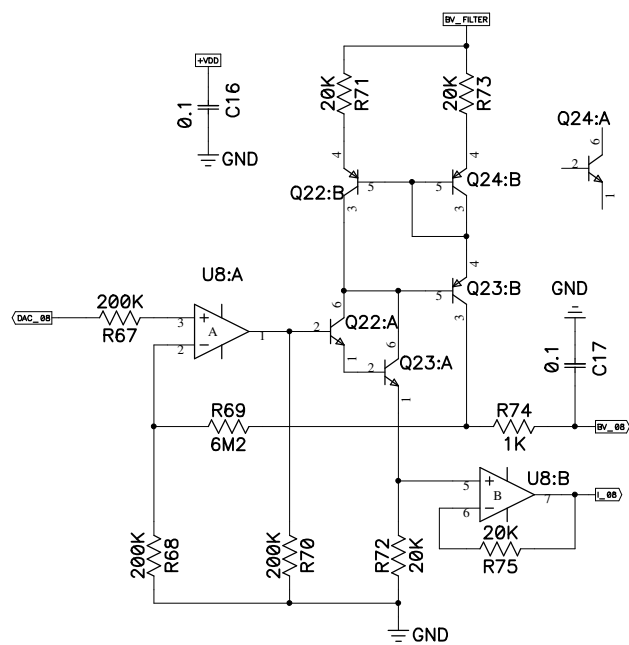
R48, R50, R54, R56, R60, R62 are selected to provide the maximum needed Bias Voltage $BV_{max} = 2.5V \times ((R + 100K) / 100K)$
For $R = 3.9M$, $BV_{max} = 100V$ (24.4mV/LSB)
Maximum current into the load is 100uA,
maximum consumption is 150uA per channel

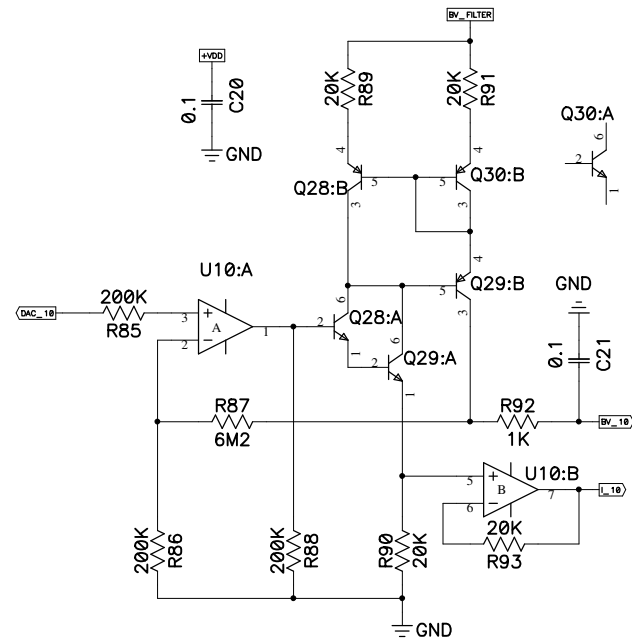
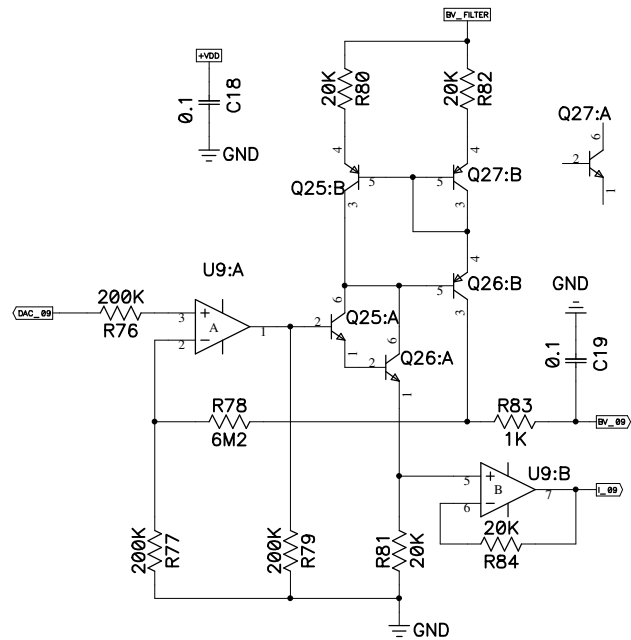
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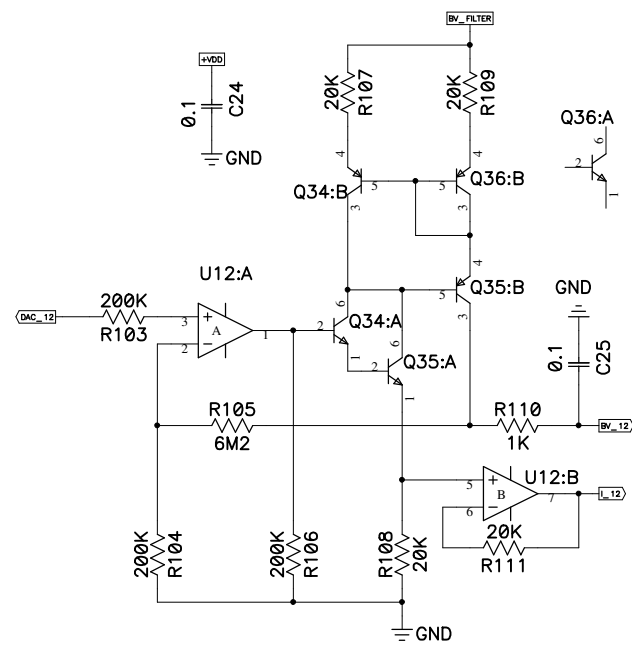
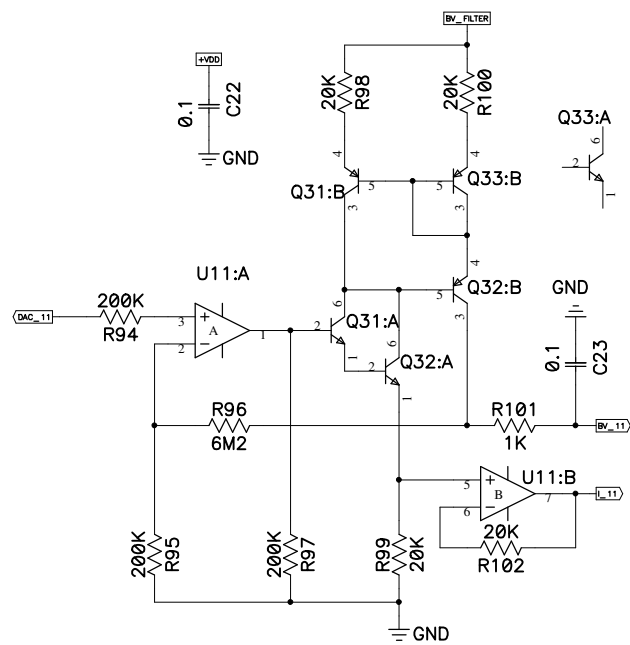
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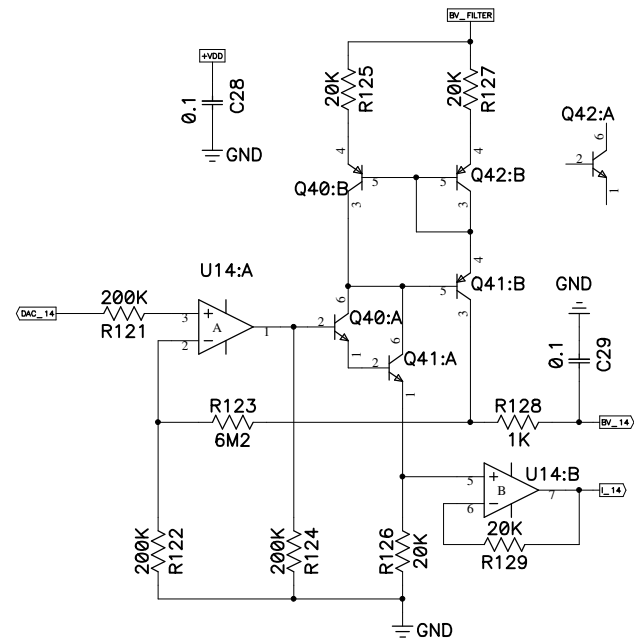
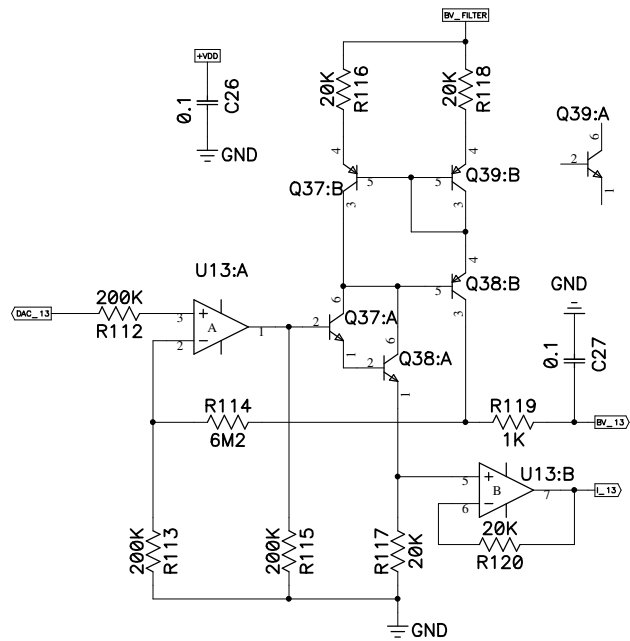




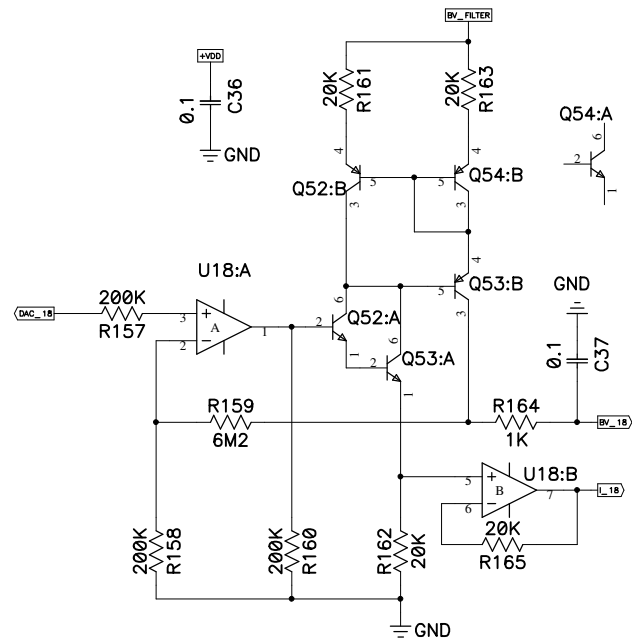
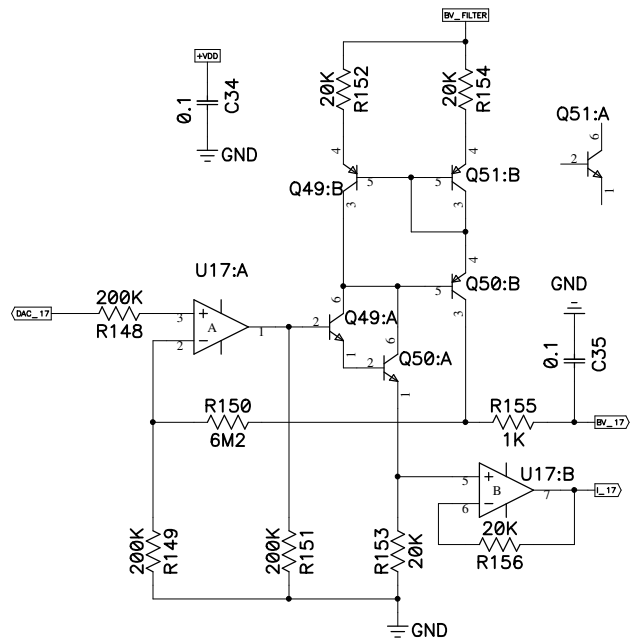
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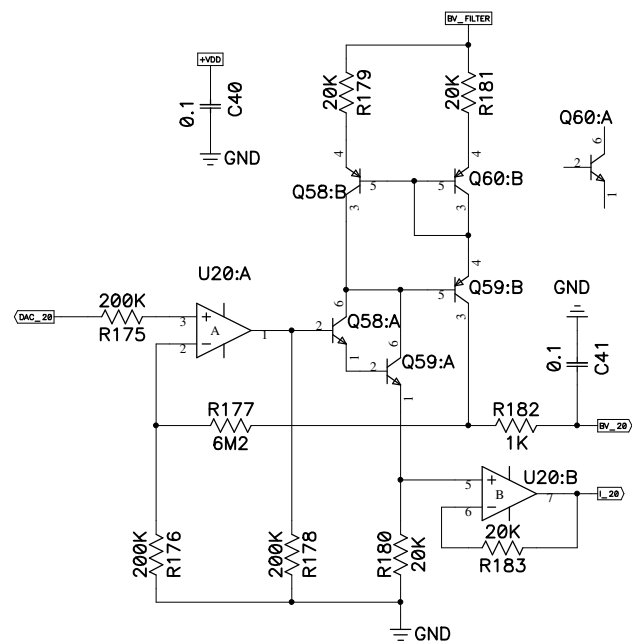
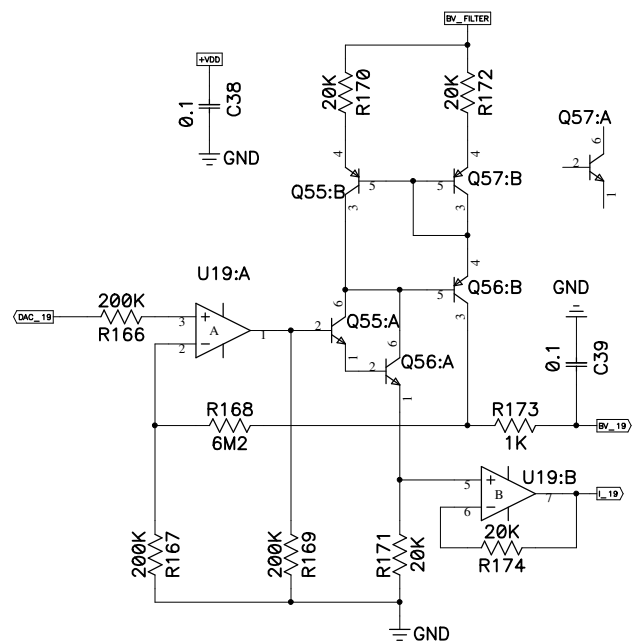
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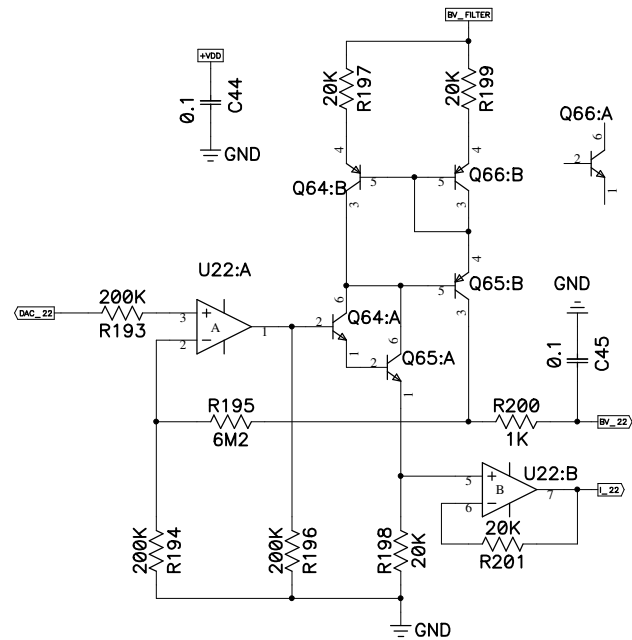
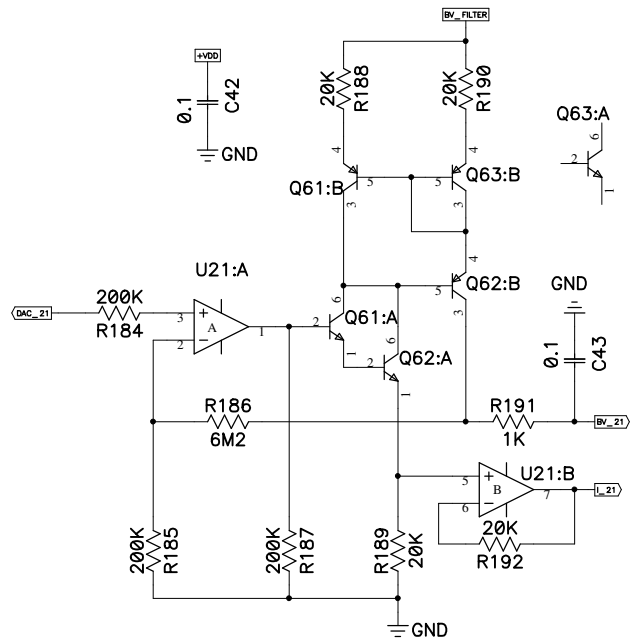
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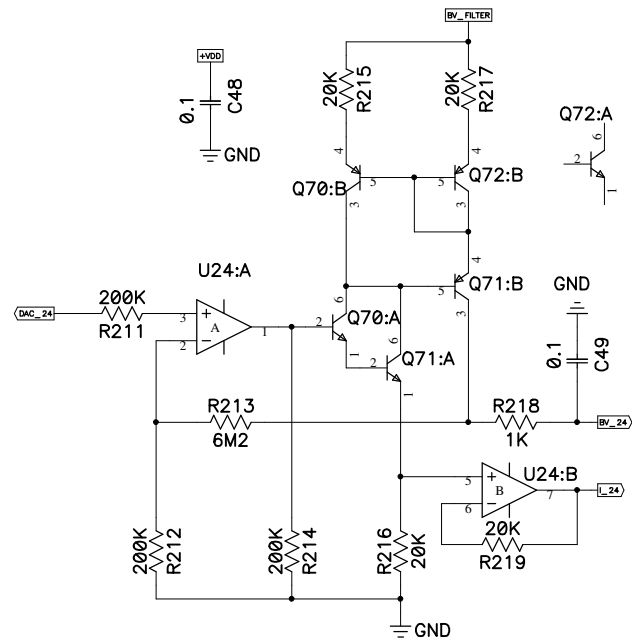
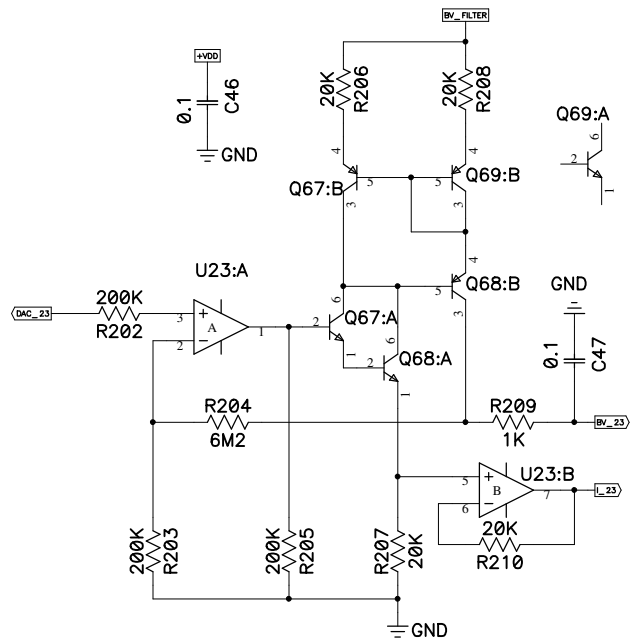
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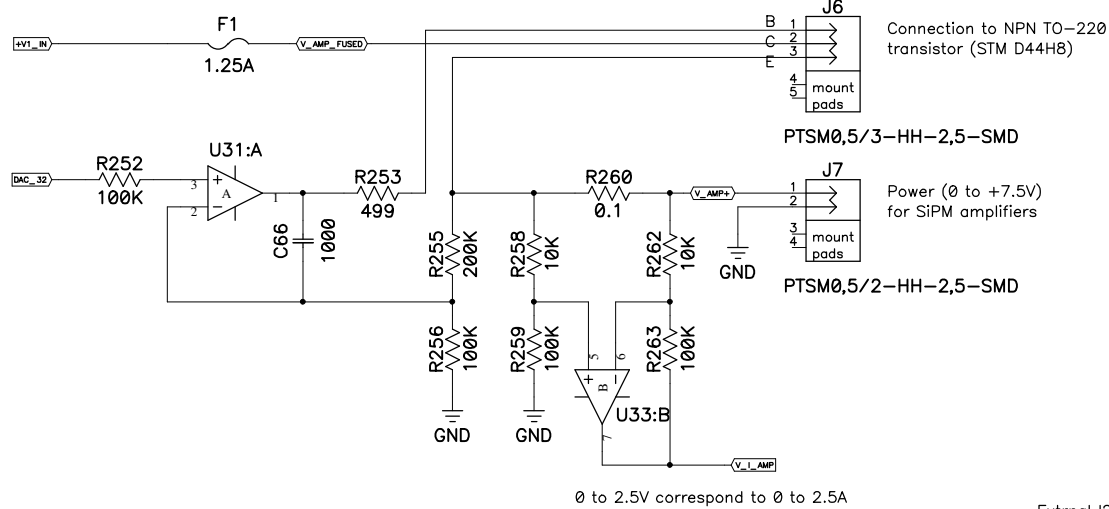
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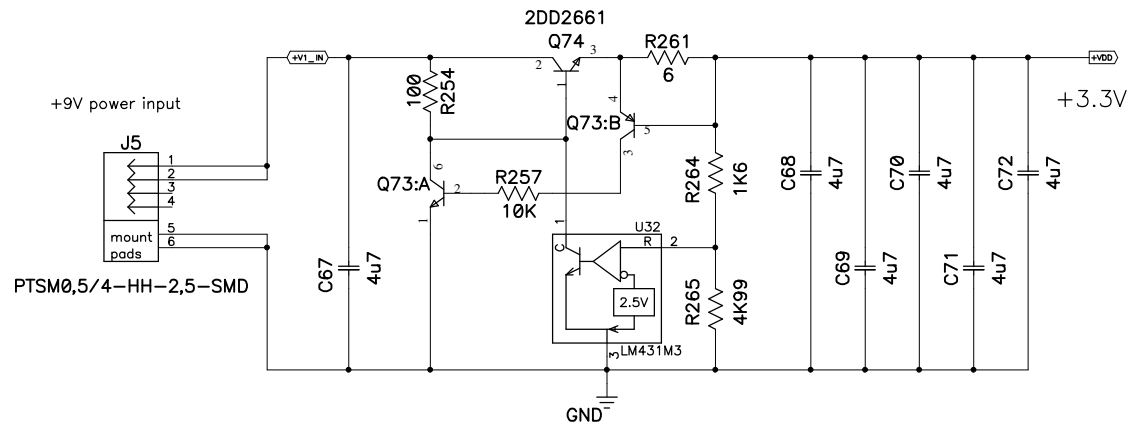
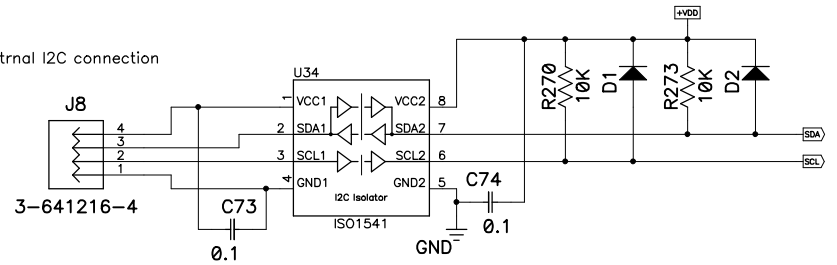
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Extrnal I2C connection



Originator	S. Los	
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Title POWER&I2C HB_SiPM_24-ch_Control		
Size C	Drawing Number {Drawing Number} 24Ch_SeaQuest_Control_Feb23_2017.SCH	Rev {Revision}
Filename	Sheet 16	of 17

	A	B	C	D																		
1				I2C addresses: ----- 1001010 MCP9801 (dummy) 1001011 ADC (ADS7828, U17) 1001100 MUX1 (ADG728, U18) 1001101 MUX2 (ADG728, U19) 1001110 MUX3 (ADG728, U24) 1001111 MUX4 (ADG728, U25) 1010100 ADC081C021 (dummy) 1010101 DAC (AD5383BST-3)																		
2																						
3																						
4				<table><tr><td>Originator</td><td>S. Los</td><td></td></tr><tr><td>Drawn</td><td>S. Los</td><td></td></tr><tr><td>Checked</td><td></td><td></td></tr><tr><td>Approved</td><td></td><td></td></tr><tr><td></td><td colspan="2">FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY</td></tr><tr><td colspan="3">Title </td></tr></table>	Originator	S. Los		Drawn	S. Los		Checked			Approved				FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY		Title 		
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