

Amplifiers

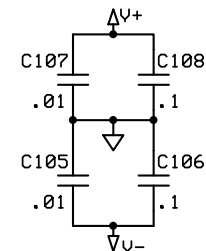
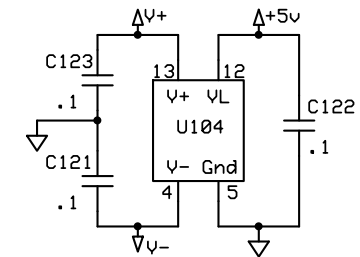
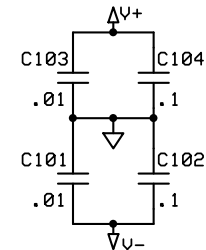
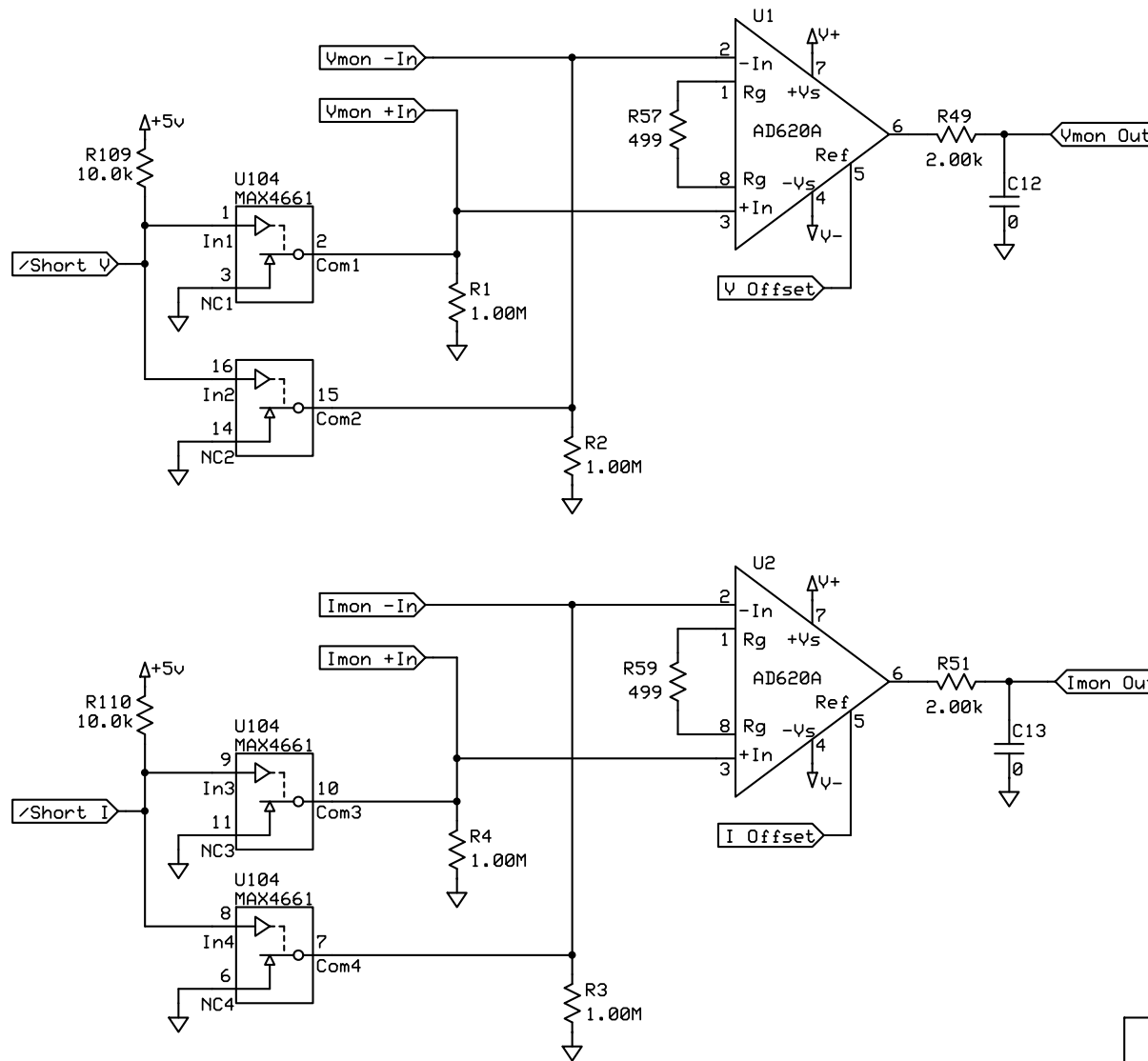
Notes:

Gain of each channel is 100.

Input resistance of each channel input is 1M (to ground).

Output impedance of each channel is 2k.

Do not install capacitors C12 and C13.



CSO Electronics Caltech

SIS Preamp Board

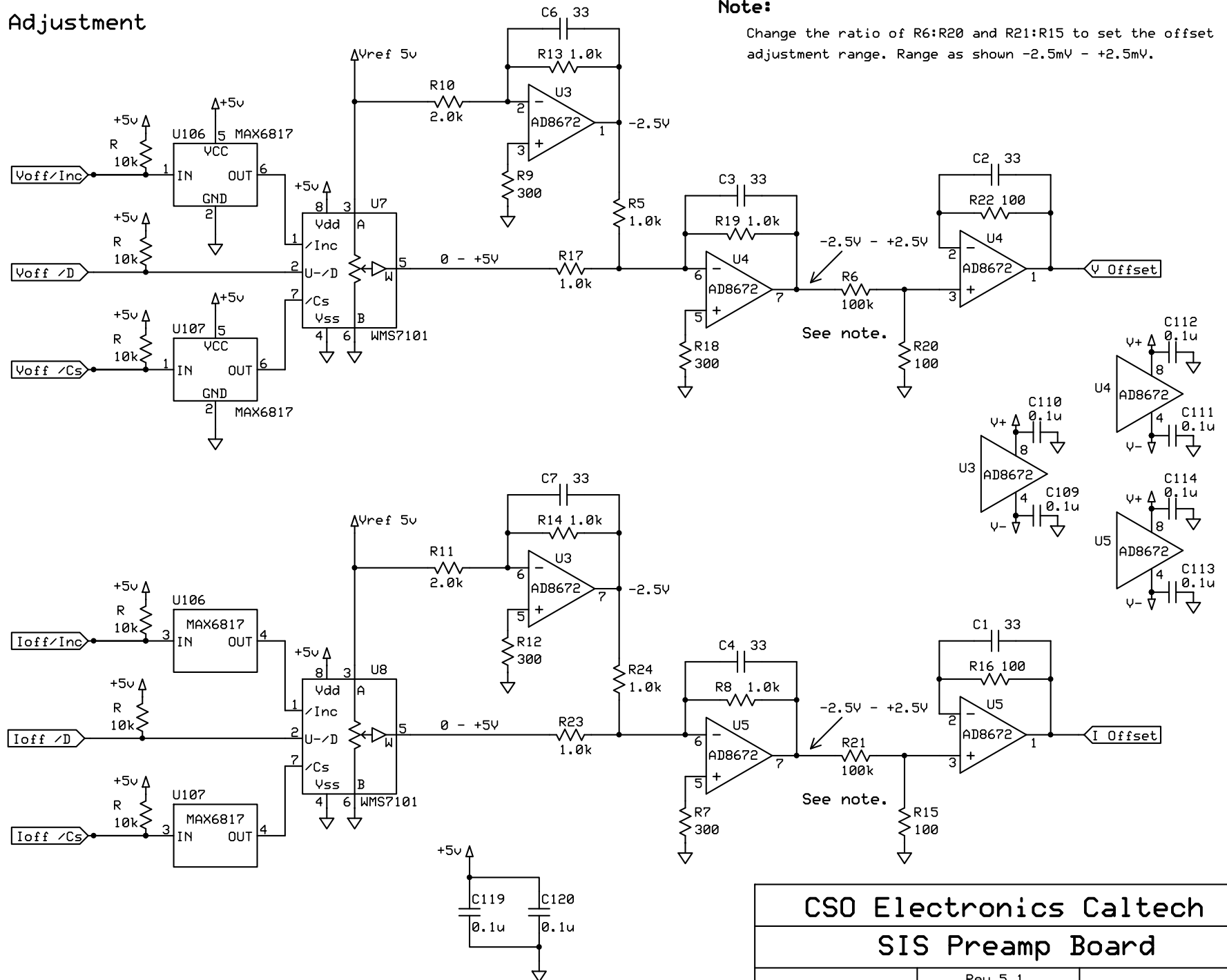
D. Miller

Rev 5.1

10/8/2009

Page 1 of 4

Offset Adjustment



CS0 Electronics Caltech
SIS Preamp Board

D. Miller

Rev 5.1
10/8/2009

Page 2 of 4

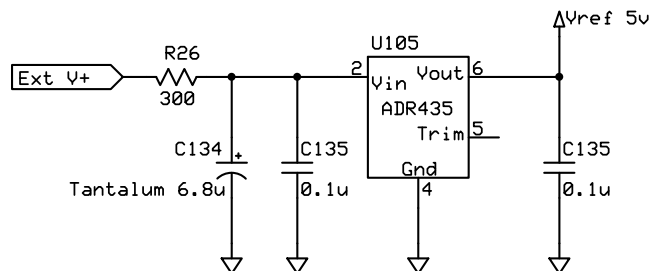
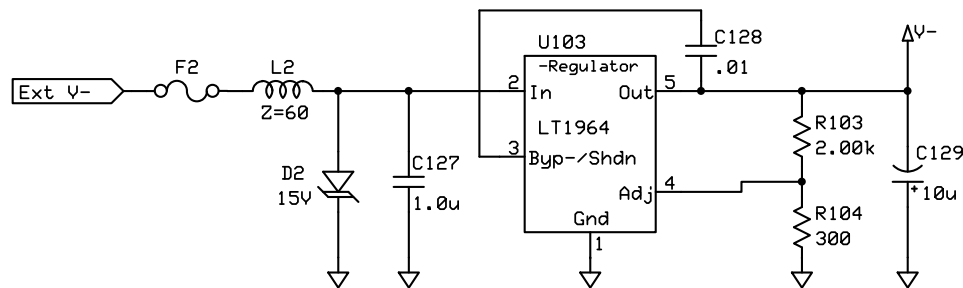
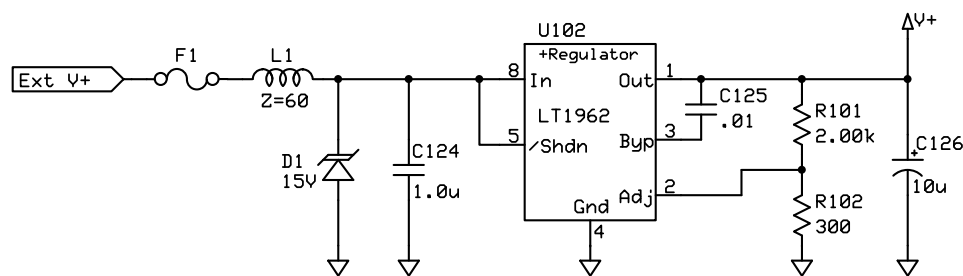
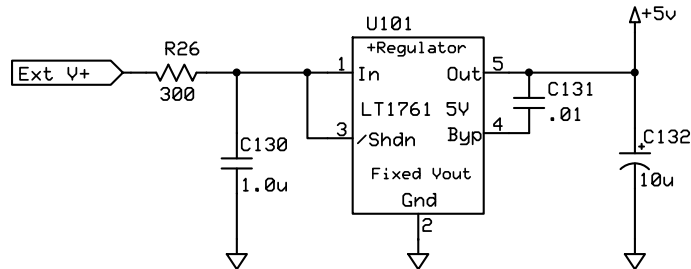
Power and Connector

Notes:

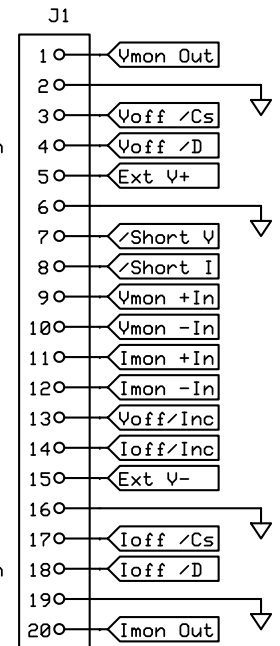
$$V_+, V_-: \pm 9.35V = 1.22V (2.00k + 300) / 300$$

C126, C129, C132: Low ESR Tantalum

D1, D2: TVS diode 1SMB15AT3



V monitor Out
V monitor return
V offset adj /Enable
V offset adj Up-/Down
+V Supply
+V Supply return
V offset adj /Short
I offset adj /Short
V monitor +In
V monitor -In
I monitor +In
I monitor -In
V offset adj /Inc
I offset adj /Inc
-V Supply
-V Supply return
I offset adj /Enable
I offset adj Up-/Down
I monitor return
I monitor Out



CSO Electronics Caltech
SIS Preamp Board

D. Miller

Rev 5.1

10/8/2009

Page 3 of 4

General Notes

Circuit Board

The circuit board for this design is Version 5, dated 1/10/2008

The Voltage monitor gain is 0.1V/mV

The Current monitor gain is $0.1\text{V/mV} \times R(\text{shunt}) = 1\text{V/mA}$ for $R(\text{shunt}) = 10\text{ Ohms}$

Power Supply

External power supply ranges: $+10 < +V < +15\text{V}$, $-15\text{V} < -V < -10\text{V}$

Resistors

Unless otherwise specified, resistors are size 0402, 0.1% tolerance thin film metal

Changes from version 5

R49, R51 reduced to 2.0k.

C12, C13 reduced to 0 (not installed).

CSO Electronics Caltech

SIS Preamp Board

D. Miller

Rev 5.1

10/8/2009

Page 4 of 4