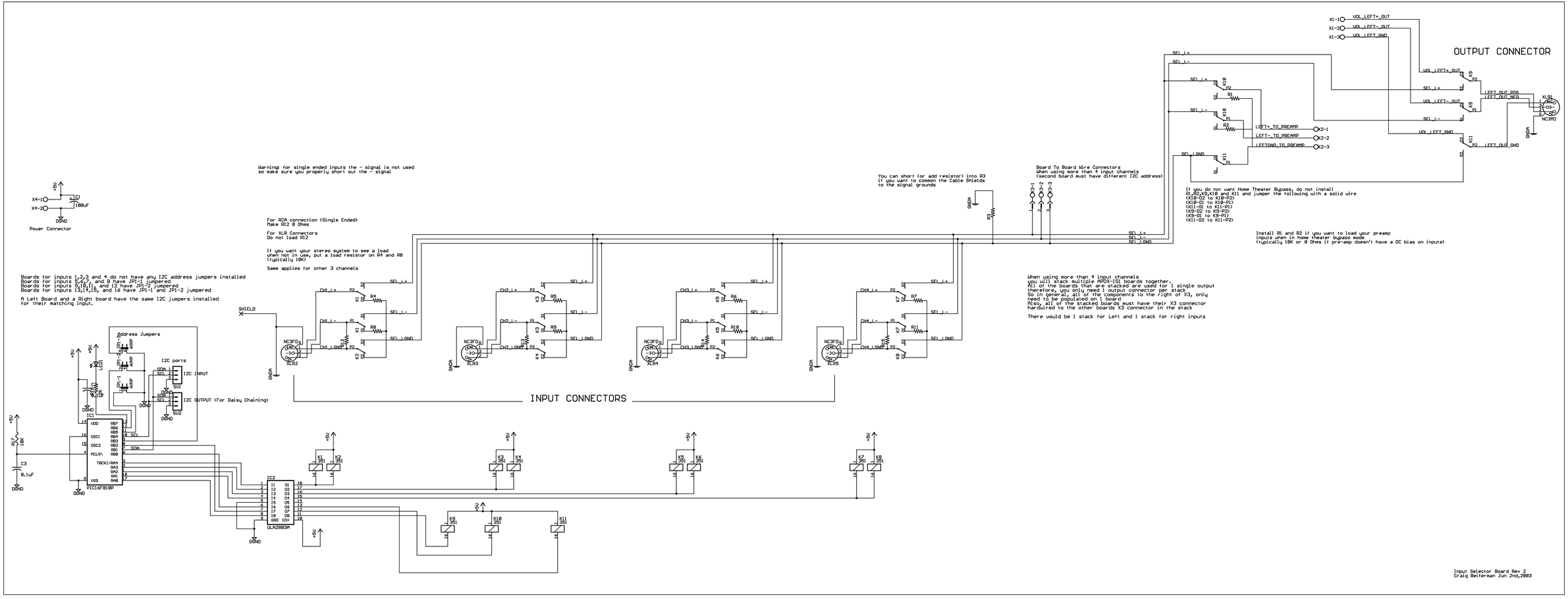
Power Connector
X4-1
X4-2
C1
100uF
+5V
DGND
Warning: for single ended inputs the - signal is not used
so make sure you properly short out the - signal
For RCA connection (Single Ended)
Make R12 0 Ohms
For XLR Connectors
Do not load R12
If you want your stereo system to see a load
when not in use, put a load resistor on R4 and R8
(typically 10K)
Same applies for other 3 channels
Boards for inputs 1,2,3 and 4 do not have any I2C address jumpers installed
Boards for inputs 5,6,7 and 8 have JP1-1 jumpered
Boards for inputs 9,10,11, and 12 have JP1-2 jumpered
Boards for inputs 13,14,15, and 16 have JP1-1 and JP1-2 jumpered
A Left Board and a Right board have the same I2C jumpers installed
for their matching input.
Address Jumpers
JP1-1
JP1-2
addr
I2C ports
SDA
SCL
I2C INPUT
SV1
I2C OUTPUT (For Daisy Chaining)
SV2
LED1
R1
10K
C2
0.10F
C3
0.1uF
IC1
PIC16F818P
VDD
VSS
OSC1
OSC2
MCLR\
T0CKI/SDA
SCL
SDA
SHIELD
GNDA
XLR2
XLR3
XLR4
XLR5
NC3FD
R4
R8
R5
R9
R6
R10
R7
R11
R12
IC2
ULN2803A
K1
K2
K3
K4
K5
K6
K7
K8
K9
K10
K11
SFI_L+
SFI_L-
SFI_LGND
CH1_L+
CH1_L-
CH1_LGND
CH2_L+
CH2_L-
CH2_LGND
CH3_L+
CH3_L-
CH3_LGND
CH4_L+
CH4_L-
CH4_LGND
INPUT CONNECTORS
You can short (or add resistor) into R3
if you want to common the Cable Shields
to the signal grounds
R3
Board To Board Wire Connectors
When using more than 4 input channels
(second board must have different I2C address)
X3-1
X3-2
X3-3
X1-1
X1-2
X1-3
VOL_LEFT+_OUT
VOL_LEFT-_OUT
VOL_LEFT_GND
OUTPUT CONNECTOR
LEFT_OUT_POS
LEFT_OUT_NEG
LEFT_OUT_GND
XLR1
NC3MD
LEFT+_TO_PREAMP
LEFT-_TO_PREAMP
LEFTGND_TO_PREAMP
X2-1
X2-2
X2-3
If you do not want Home Theater Bypass, do not install
R1,R2,K9,K10 and K11 and jumper the following with a solid wire
(K10-D2 to K10-P2)
(K10-D1 to K10-P1)
(K11-D1 to K11-P1)
(K9-D2 to K9-P2)
(K9-D1 to K9-P1)
(K11-D2 to K11-P2)
Install R1 and R2 if you want to load your preamp
inputs when in home theater bypass mode
(typically 10K or 0 Ohms if pre-amp doesn't have a DC bias on inputs)
When using more than 4 input channels
you will stack multiple APOX-IS1 boards together.
All of the boards that are stacked are used for 1 single output
therefore, you only need 1 output connector per stack
So in general, all of the components to the right of X3, only
need to be populated on 1 board
Also, all of the stacked boards must have their X3 connector
hardwired to the other boards X3 connector in the stack
There would be 1 stack for Left and 1 stack for right inputs
Input Selector Board Rev 2
Craig Beiferman Jun 2nd,2003