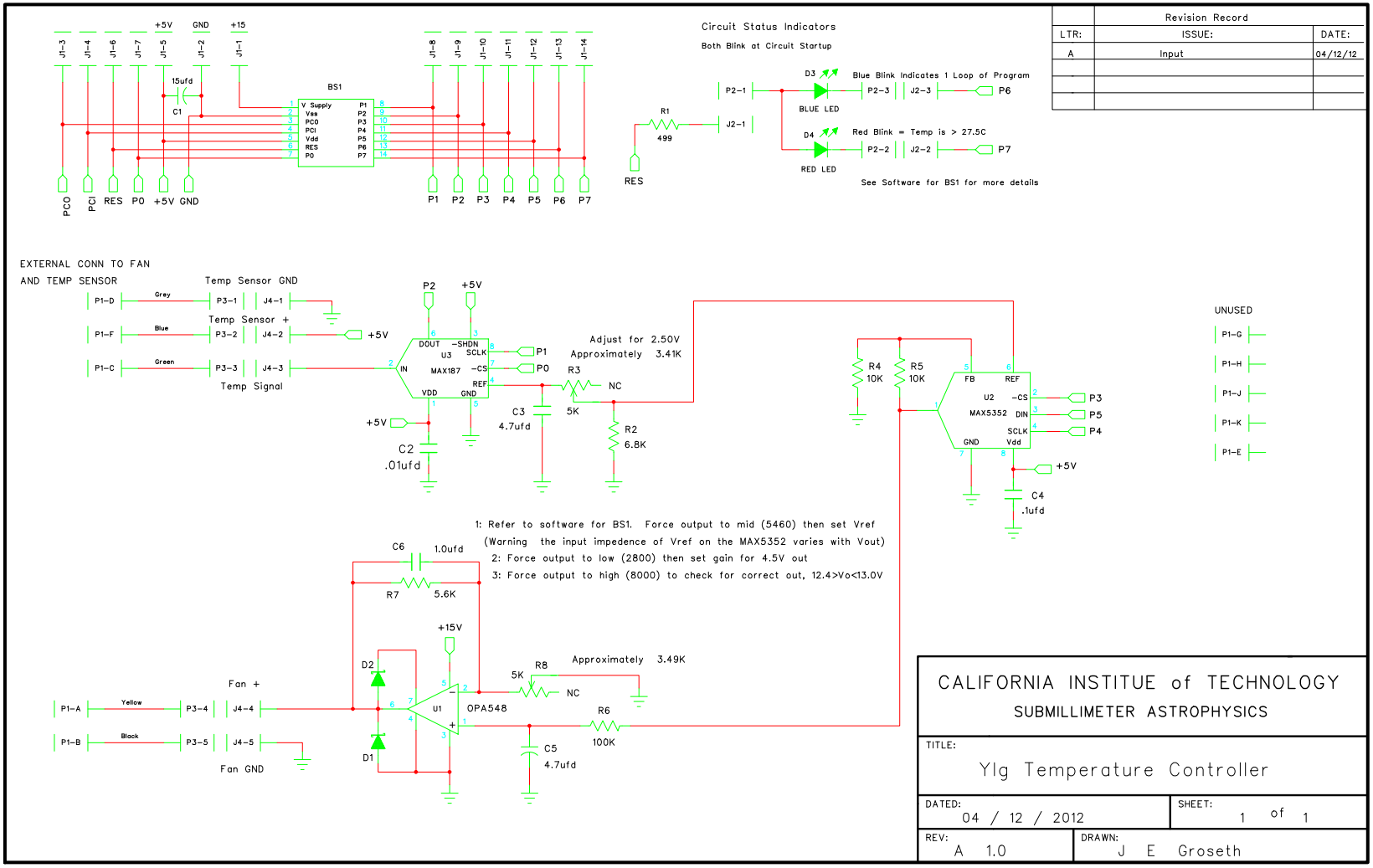
Revision Record
LTR: ISSUE: DATE:
A Input 04/12/12
BS1
V Supply
Vss
PCO
PCI
Vdd
RES
P0
P1 P2 P3 P4 P5 P6 P7
15ufd
C1
+5V GND +15
J1-3 J1-4 J1-6 J1-7 J1-5 J1-2 J1-1 J1-8 J1-9 J1-10 J1-11 J1-12 J1-13 J1-14
PCO PCI RES P0 +5V GND
Circuit Status Indicators
Both Blink at Circuit Startup
D3
Blue Blink Indicates 1 Loop of Program
BLUE LED
D4
Red Blink = Temp is > 27.5C
RED LED
R1
499
RES
P2-1 J2-1 P2-3 J2-3 P6 P2-2 J2-2 P7
See Software for BS1 for more details
EXTERNAL CONN TO FAN
AND TEMP SENSOR
Temp Sensor GND
Temp Sensor +
Temp Signal
P1-D Grey P3-1 J4-1
P1-F Blue P3-2 J4-2 +5V
P1-C Green P3-3 J4-3
U3
MAX187
DOUT -SHDN SCLK -CS REF IN VDD GND
P2 +5V P1 P0
C2
.01ufd
C3
4.7ufd
R3
5K
NC
R2
6.8K
Adjust for 2.50V
Approximately 3.41K
R4
10K
R5
10K
U2
MAX5352
FB REF -CS DIN SCLK Vdd GND
P3 P5 P4
C4
.1ufd
UNUSED
P1-G P1-H P1-J P1-K P1-E
1: Refer to software for BS1. Force output to mid (5460) then set Vref
(Warning the input impedence of Vref on the MAX5352 varies with Vout)
2: Force output to low (2800) then set gain for 4.5V out
3: Force output to high (8000) to check for correct out, 12.4>Vo<13.0V
C6
1.0ufd
R7
5.6K
+15V
D2
D1
U1
OPA548
R8
5K
NC
Approximately 3.49K
R6
100K
C5
4.7ufd
Fan +
Fan GND
P1-A Yellow P3-4 J4-4
P1-B Black P3-5 J4-5
CALIFORNIA INSTITUE of TECHNOLOGY
SUBMILLIMETER ASTROPHYSICS
TITLE:
Yig Temperature Controller
DATED: 04 / 12 / 2012
SHEET: 1 of 1
REV: A 1.0
DRAWN: J E Groseth