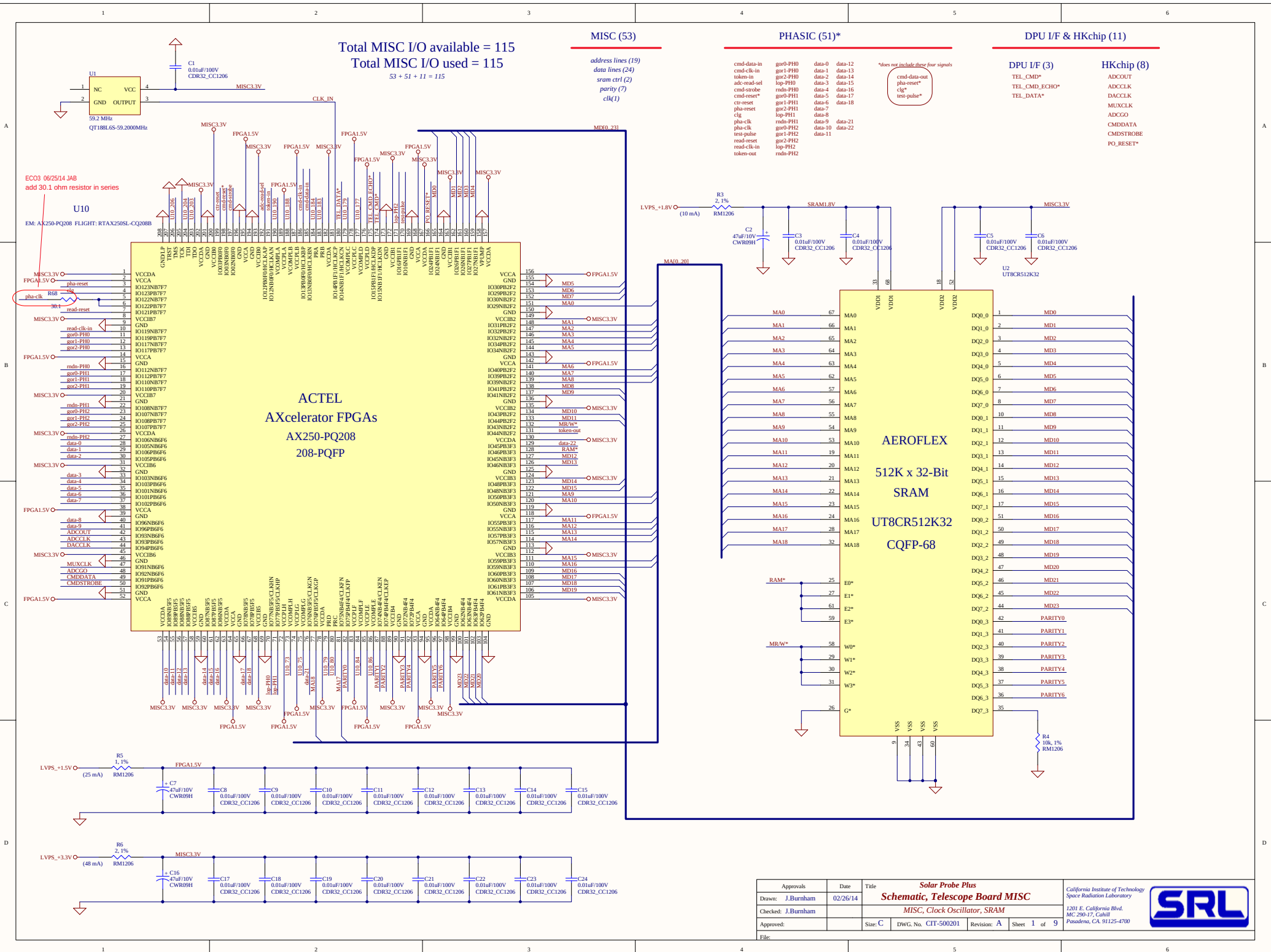




Total MISC I/O available = 115
Total MISC I/O used = 115
 $53 + 51 + 11 = 115$

MISC (53)

address lines (19)
data lines (24)
ram ctrl (2)
parity (7)
clk(1)

PHASIC (51)*

cmd-data-in
cmd-clk-in
token-in
adc-read-sel
cmd-strobe
cmd-reset*
ctr-reset
pla-reset
clk
pla-clk
cmd-strobe
test-pulse
read-reset
read-clk-in
token-out

gor0-PH0
gor1-PH0
gor2-PH0
top-PH0
top-PH1
gor1-PH1
gor2-PH1
top-PH1
rdo-PH1
gor1-PH2
gor2-PH2
top-PH2
rdo-PH2

*does not include these four signals
cmd-data-out
pla-reset*
clk*
test-pulse*

DPU I/F & HKchip (11)

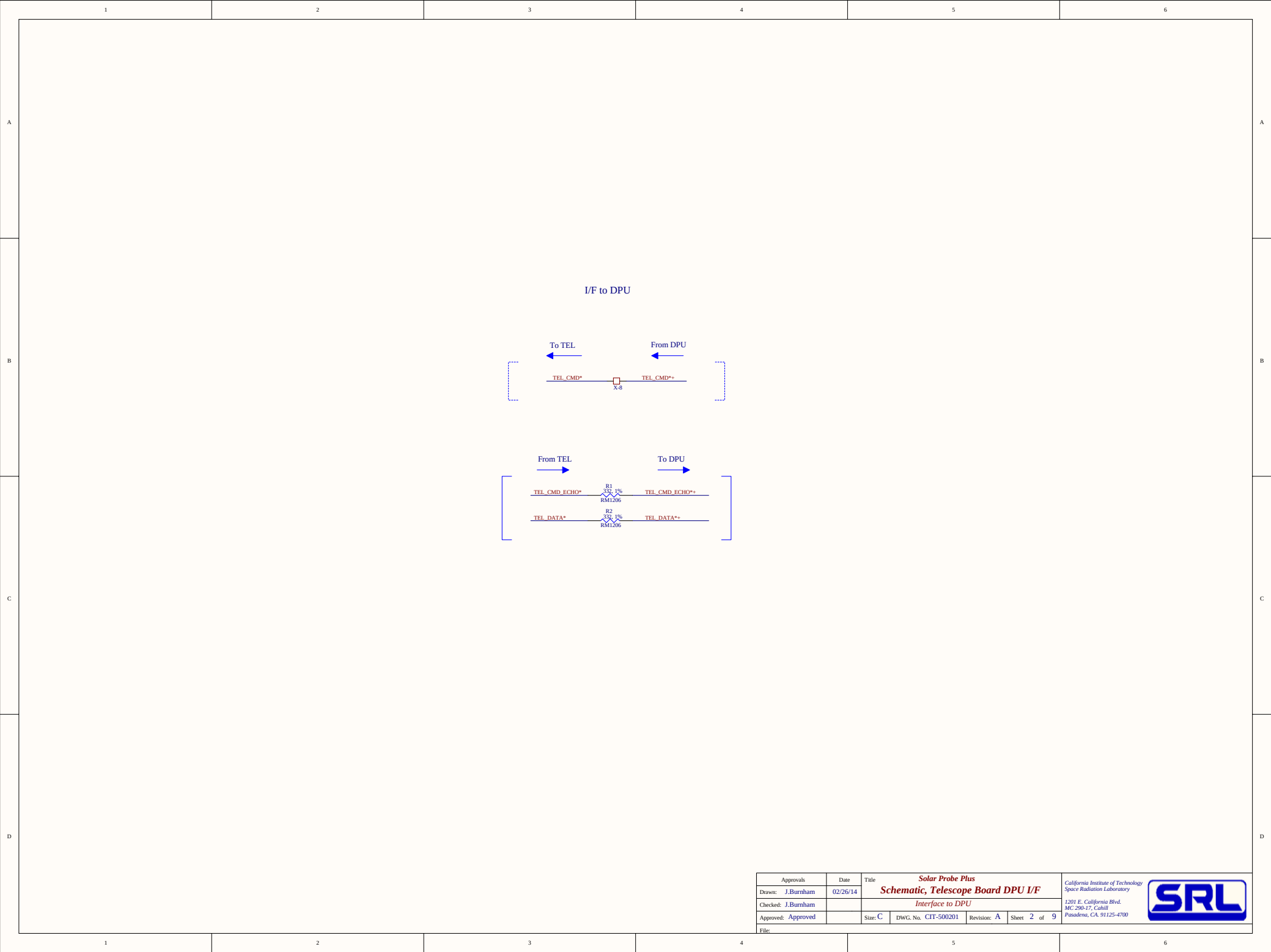
DPU I/F (3)
TEL_CMD*
TEL_CMD_ECHO*
TEL_DATA*

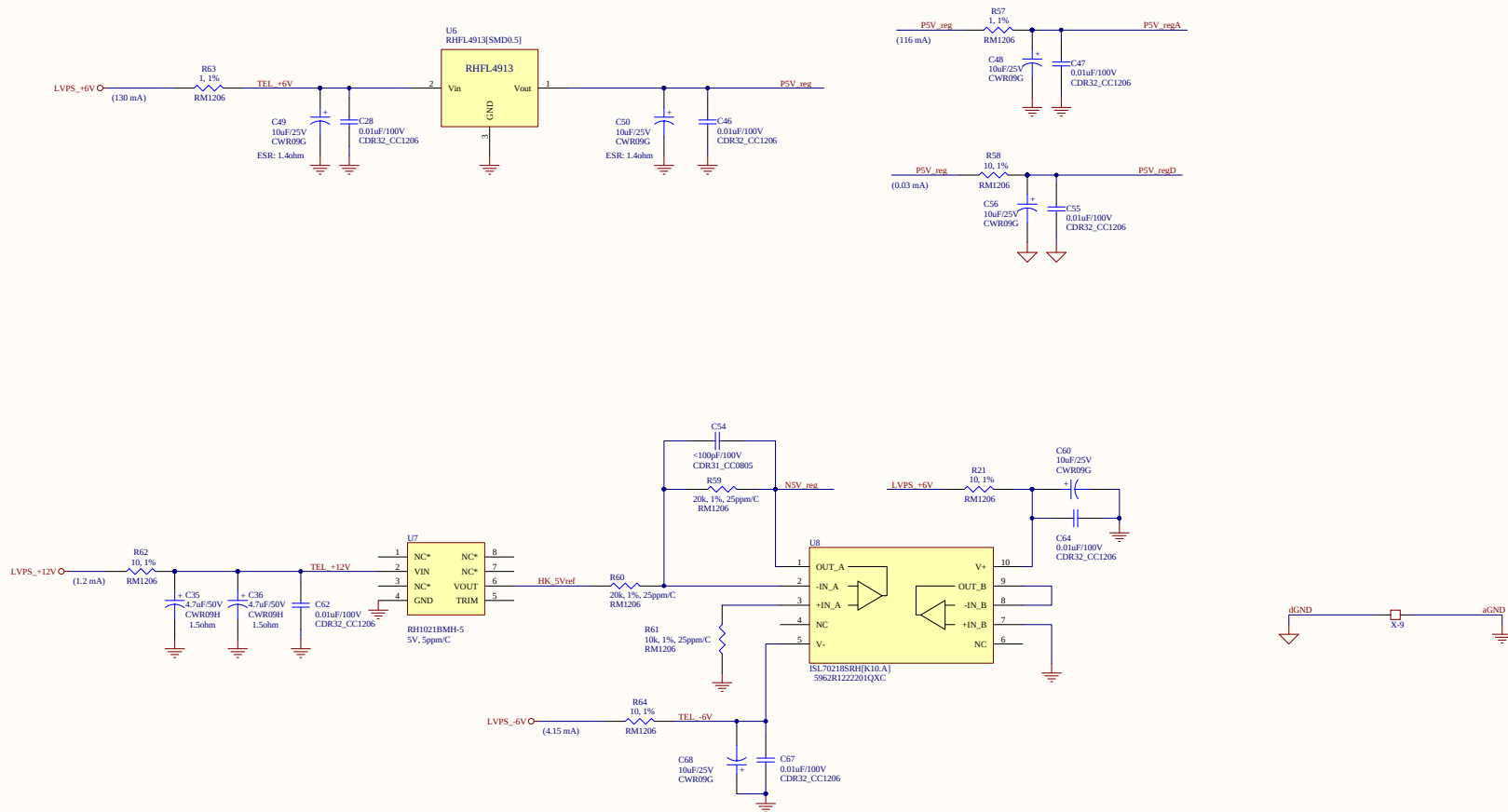
HKchip (8)
ADCOUT
ADCCLK
DACCLK
MUXCLK
ADCGO
CMDDATA
CMDSTROBE
PO_RESET*

AEROFLEX
512K x 32-Bit
SRAM
UT8CR512K32
CQFP-68

Approvals		Date	Title		Solar Probe Plus	
Drawn: J. Burnham		02/26/14	Schematic, Telescope Board MISC		California Institute of Technology Space Radiation Laboratory	
Checked: J. Burnham			MISC, Clock Oscillator, SRAM		1201 E. California Blvd. MC 290-17, Caltech Pasadena, CA 91125-4700	
Approved:			Size: C	DWG: No. CIT-500201	Revision: A	Sheet 1 of 9
File:						

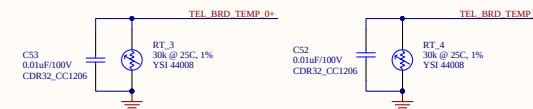
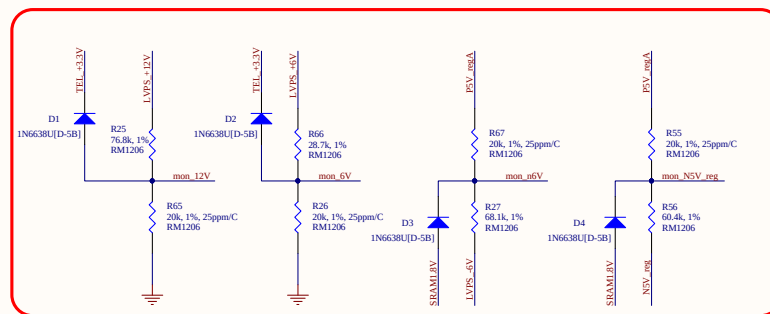




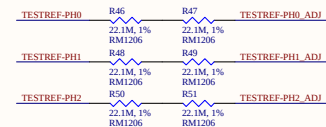
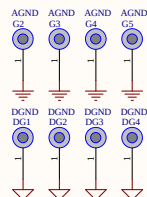
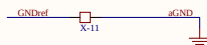


Approvals	Date	Title			California Institute of Technology		
Drawn: J. Burnham	02/26/14	Solar Probe Plus			Space Radiation Laboratory		
Checked: J. Burnham		Schematic, Telescope Board Reg			1201 E. California Blvd.		
Approved: Approved		Regulators			MC 290-17, Caltech		
File:		Size: C	DWG. No. CIT-500201	Revision: A	Sheet 3 of 9	Pasadena, CA 91125-4700	



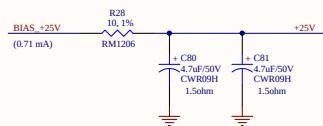


ECO 7 Add protection diodes 08-08-14 JAB

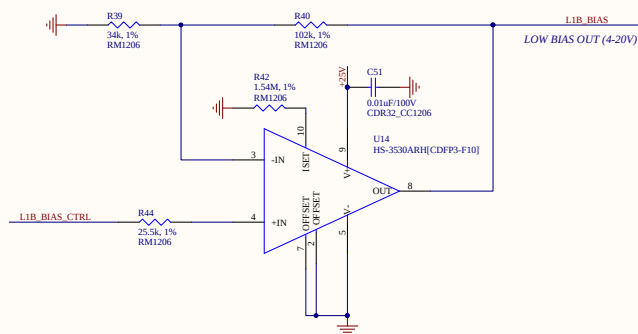
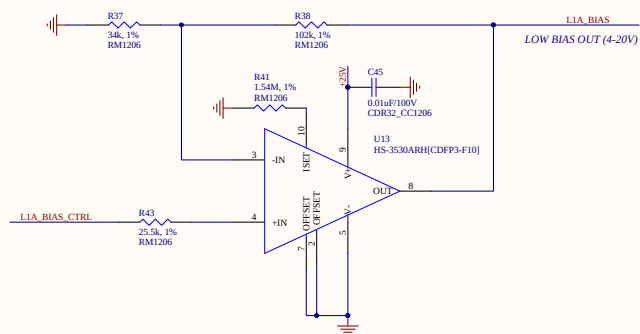
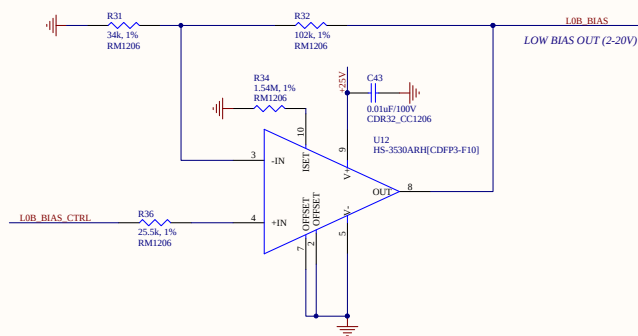
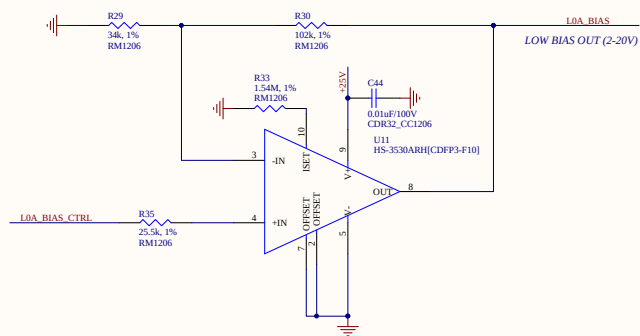


value TBD
tested with 39M
MIL SPEC claims RM1206 available up to 22M

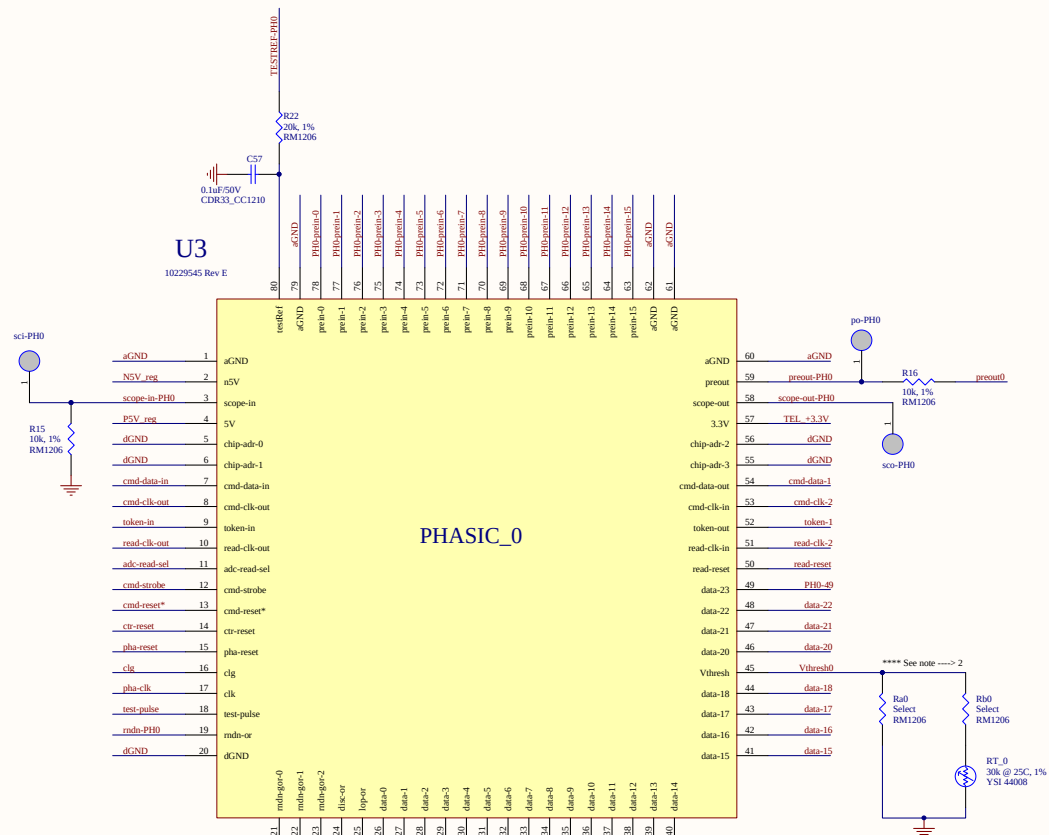
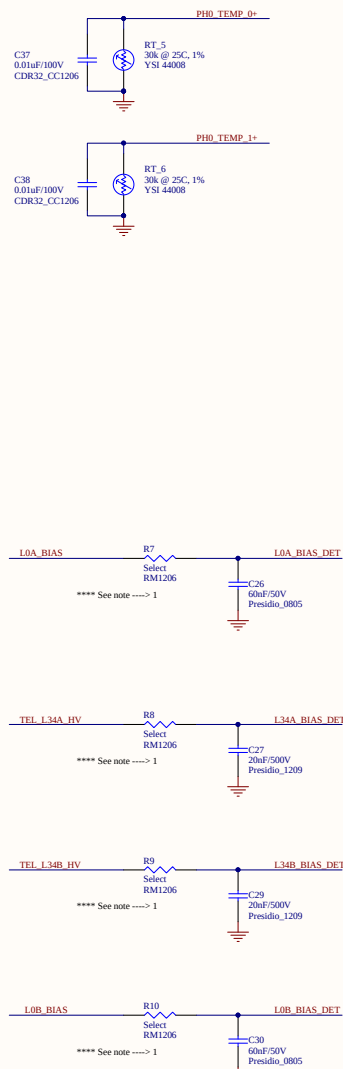
Approvals	Date	Solar Probe Plus Schematic, Telescope Board HKchip				California Institute of Technology Space Radiation Laboratory 1201 E. California Blvd. MC 290-17, Caltech Pasadena, CA 91125-4700 
Drawn: J.Burnham	02/26/14	Housekeeping ASIC				
Checked: J.Burnham						
Approved: <u>Approved</u>		Size: C	DWG. No. CIT-500201	Revision: A	Sheet 4 of 9	
File:						



currently set all low bias for gain =4 i.e. 0-20V out



Approvals	Date	Title				California Institute of Technology Space Radiation Laboratory		
Drawn: J.Burnham	02/26/14	Solar Probe Plus Schematic, Telescope Board Low Bias				1201 E. California Blvd. MC 290-17, Caltech Pasadena, CA 91125-4700		
Checked: J.Burnham		Low Bias Voltages						
Approved: Approved		Size: C	DWG. No. CIT-500201	Revision: A	Sheet 5 of 9			
File:								



NOTES :

1. Select resistors for bias filters depending on the detector type.
Resistor values selected pending detector leakage current measurements
2. Select resistors for each board depending on the PHASIC hybrid S/N.
Resistor values selected pending PHASIC temperature cycle testing

BOARD S/N	HYBRID S/N	HYBRID REF. DES.	Ra	Rb
?	?	U?	196k	332k
?	?	U?	215k	357k

3. CA0 thru CA15 capacitor values found in table: [Cin_on_telescope_boards_20141017.pdf](#)

Approvals	Date	Solar Probe Plus Schematic, Telescope Board PHASIC 0				<i>California Institute of Technology</i> Space Radiation Laboratory		
Drawn: J.Burnham	02/26/14							
Checked: J.Burnham		L0A, L3A, L3B, L0B						
Approved: Approved		Size: C	DWG. No. CIT-500201	Revision: A	Sheet 6 of 9			
File:								



A

B

C

D

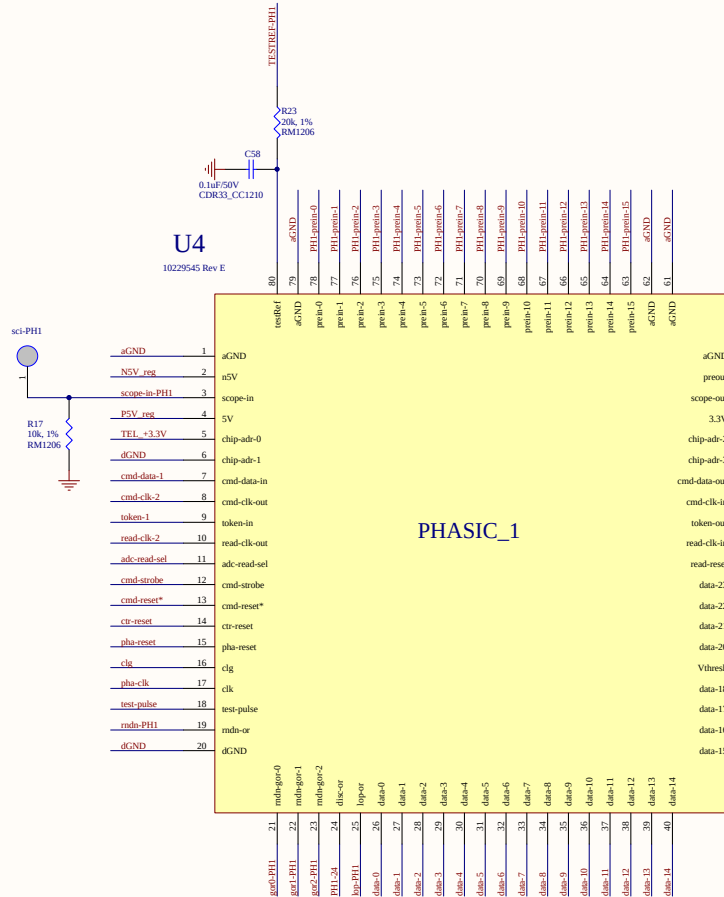
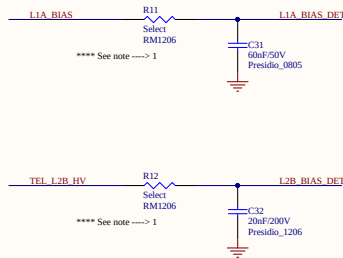
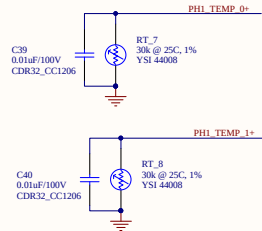
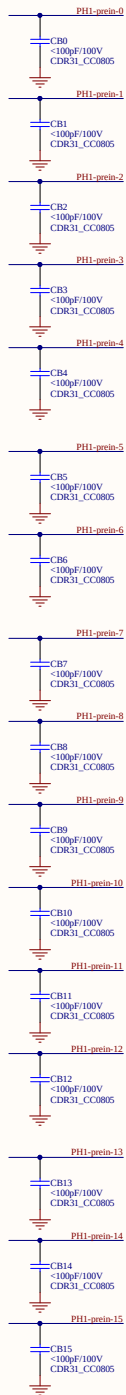
A

B

C

D

**** See note ----> 3

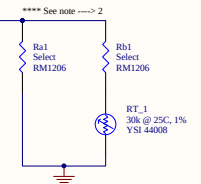


NOTES :

- Select resistors for bias filters depending on the detector type.
Resistor values selected pending detector leakage current measurements
- Select resistors for each board depending on the PHASIC hybrid S/N.
Resistor values selected pending PHASIC temperature cycle testing
- CA0 thru CA15 capacitor values found in table: Cln_on_telescope_boards_20141017.pdf

BOARD S/N	HYBRID S/N	HYBRID REF. DES.	Ra	Rb
?	?	U7	190k	332k
?	?	U7	215k	357k

ECO 2 NEED TO USE chip-adr-2 and 3 instead of chip-adr-0 and 1
remove pin 56 from dGND and haywire to pin 57 06/09/14 JAB



Approvals	Date	Title	Solar Probe Plus		
Drawn: J.Burnham	02/26/14		Schematic, Telescope Board PHASIC 1		
Checked: J.Burnham			L1A, L4A, L2B		
Approved: Approved		Size: C	DWG. No. CIT-500201	Revision: A	Sheet 7 of 9
File:					

California Institute of Technology
Space Radiation Laboratory

1201 E. California Blvd.
MC 290-17, Caltech
Pasadena, CA 91125-4700



