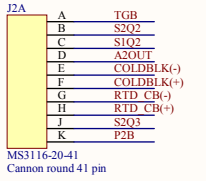
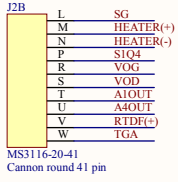
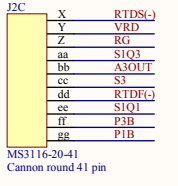
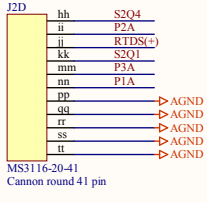
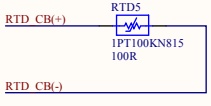
CDO	DRIVE
1	S1Q1
2	S1Q2
3	S1Q3
4	S1Q4
5	S2Q1
6	S2Q2
7	S2Q3
8	S2Q4
9	S3
10	RG
11	SG
12	P1A
13	P1B
14	P2A
15	P2B
16	P3A
17	P3B
18	TGA
19	TGB

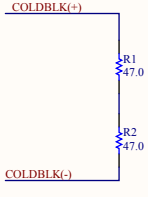


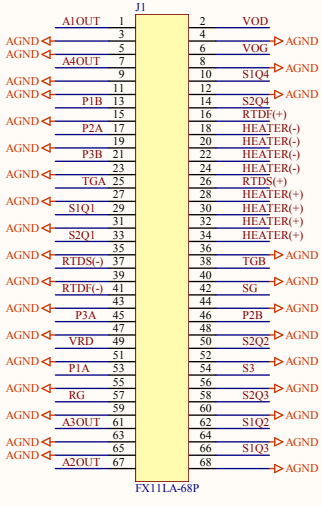










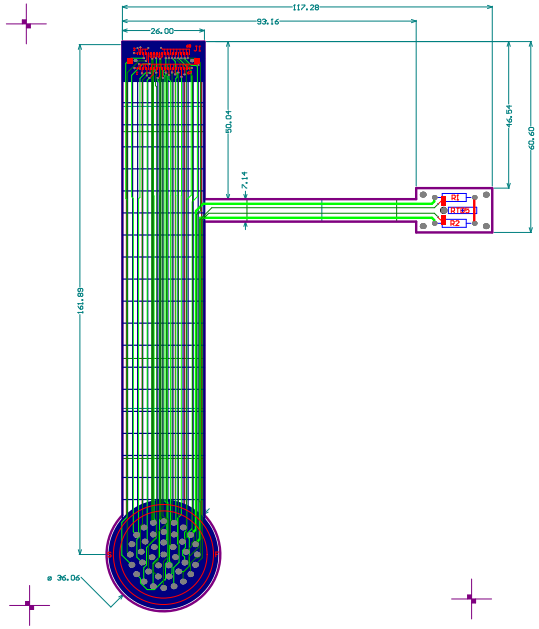


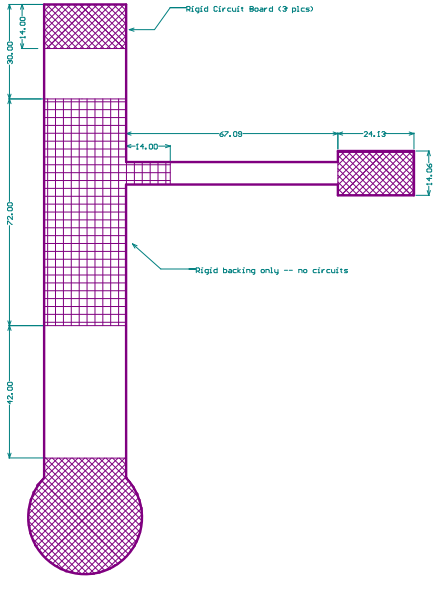
Title		
Size: B	Number	Revision
Date: 1/18/2010	Sheet of	
File: C:\Documents and Settings\..\Flex_Circuit.SchDoc	Drawn By:	

NOTES (UNLESS OTHERWISE SPECIFIED):

GENERAL

1) RIGID-FLEX PORTION IS 6 LAYER
2) FLEX PORTION IS 4 LAYER
3) NO SOLDER MASK OR OVERLAY LAYERS
4) RIGID AND FLEX CIRCUITS WILL BE POLIMIDE





5) THE PHOTO TOOL SHALL NOT BE COMPENSATED WITHOUT PRIOR ENGINEERING APPROVAL.
PCB DESIGNER: RICH LOBDILL PH (805) 880-1621 FAX (805) 961-1792.

FABRICATION TOLERANCES

6) END PRODUCT CONDUCTOR WIDTHS AND PAD DIAMETERS SHALL NOT VARY MORE THAN 0.002" FROM THE 1:1 DIMENSIONS OF THE MASTER ARTWORK.
7) THE CONDUCTIVE PATTERN SHALL BE POSITIONED SO THAT THE LOCATION OF ANY PAD OR LAND SHALL BE WITHIN 0.005" DIAMETER TO THE TRUE POSITION OF THE HOLE IT CIRCUMSCRIBES.
8) ALL DRILL HOLE SIZES AND TOLERANCES APPLY AFTER PLATING.
9) THE MINIMUM ANNULAR RING SHALL BE 0.005".
10) BOW AND TWIST SHALL NOT EXCEED 0.010" PER INCH.
11) FOR PCB ROUTING DIMENSIONS: .XXX = +/-.005" .XX = +/-.020"

MATERIAL

12) BASE MATERIAL IS FR4 EPOXY FIBERGLASS
13) SEE STACK-UP LEGEND FOR COPPER CLADDING CALL OUTS

PLATING

14) ALL HOLES AND CONDUCTIVE SURFACES SHALL BE PLATED WITH A MINIMUM OF 0.001" COPPER.
15) AFTER SOLDERMASK, ALL EXPOSED HOLES AND CONDUCTIVE SURFACES SHALL BE COATED WITH A GOLD IMMERSION PLATING TO PRESERVE SOLDERABILITY.

COATINGS

16) THE SOLDERMASK SHALL BE BLACK LIQUID PHOTO-IMAGEABLE PER IPC-SM-840, TYPE-B, CLASS 2.
17) THE SOLDERMASK REGISTRATION ALLOWANCE IS 0.003". THERE SHALL BE NO SOLDERMASK ON ANY SOLDER PAD OR LAND.

MARKING

18) THE LEGEND SHALL BE SCREEN-PRINTED USING PERMANENT YELLOW EPOXY INK.
19) THE SCREEN PRINTING REGISTRATION ALLOWANCE IS 0.007". THERE SHALL BE NO INK ON ANY SOLDER PAD OR LAND.
20) THE VENDOR CODE AND UL FLAMMABILITY RATING MAY BE ETCHED IN THE FOIL OR MARKED IN PERMANENT EPOXY INK (VENDOR'S OPTION).

ELECTRICAL TESTING

21) ALL BOARDS SHALL BE ELECTRICALLY TESTED TO THE SUPPLIED IPC-D-356A NET LIST FOR CONTINUITY, OPENS AND SHORTS.

SINISTRO FLEX CIRCUIT Rev. A
LAS CUMBRES OBSERVATORY 10/18/10

*.GTL – TOP LAYER GERBER DATA
*.G1 – MID LAYER 1 GERBER DATA
*.G2 – MID LAYER 2 GERBER DATA
*.G3 – MID LAYER 3 GERBER DATA
*.G4 – MID LAYER 4 GERBER DATA
*.GBL – BOTTOM LAYER GERBER DATA

Layer Stack Up Detail for: Flex_Circuit.PcbDoc

Layer Name	
Top Layer (*.GTL)	RIGID
Mid-Layer 1 (*.G1)	FLEX
Mid-Layer 2 (*.G2)	FLEX
Mid-Layer 3 (*.G3)	FLEX
Mid-Layer 4 (*.G4)	FLEX
Bottom Layer (*.GBL)	RIGID

PRIMARY PCB SPECIFICATIONS

(REFER TO COMPLETE SPEC LISTING AT LEFT FOR FURTHER DETAILS)

NUMBER OF LAYERS	–	6
FINISHED THICKNESS	–	.062"
BASE MATERIAL	–	POLYIMIDE
PLATING TYPE	–	GOLD IMMERSION
SOLDER MASK COLOR	–	NO SOLDER MASK

Las Cumbres Observatory
Global Telescope Network
Las Cumbres Observatory, Inc.
6740 Cortona Dr.
Goleta, CA 93117
www.lcogt.net

DATE	DESIGNED	DRAWN	SCALE
1/18/2010	Rich Lobdill	Rich Lobdill	1 : 1

CHECKED BY | APPROVED BY

TITLE: SINISTRO FLEX CIRCUIT

SIZE	DOC NO.	REV	SHEET
C	– GPT	A	1 OF X

Comment	Description	Designator	Footprint	LibRef	Quantity
FX11LA-68P	HIROSE 68P Header	J1	FX11LA-68P	FX11LA-68P	1
MS3116-20-41		J2	MS-3116 Size 20-41, Male	Cannon round 41 pin	1
	Resistor	R1, R2	AXIAL-0.5	ResTH	2
RTD 2-wire, 1x8mm	Pt RTD	RTD5	RTD 1x8mm	RTD 2-wire, 1x8mm	1