# NOTES (UNLESS OTHERWISE SPECIFIED):

- 1) PCB IS 8-LAYER, .062" THICK.
  2) CONSTRUCTION IS SOLDER-MASK-OVER-BARE-COPPER (SMOBC).
- 3) ACCEPTABILITY SHALL BE BASED ON PC-A-600, CLASS 2.
  4) THE FOLLOWING GERBER RS274X PHOTO TOOL FILES SHALL BE USED TO DEFINE ALL CIRCUIT FEATURES:
  - \*.GTL TOP LAYER GERBER DATA
  - \*.G1 MID LAYER 1 GERBER DATA
  - \*.G2 MID LAYER 2 GERBER DATA
  - \*.GP1 INTERNAL PLANE LAYER 1 GERBER DATA \*.GP2 INTERNAL PLANE LAYER 2 GERBER DATA
  - \*.GP3- INTERNAL PLANE LAYER 3 GERBER DATA
  - \*.GP4 INTERNAL PLANE LAYER 4 GERBER DATA
  - \*.GBL BOTTOM LAYER GERBER DATA \*.GTO TOP OVERLAY GERBER DATA

  - \*.GTS TOP SOLDER MASK GERBER DATA
  - \*.GTP TOP-SIDE SOLDER PASTE MASK \*GBO BOTTOM OVERLAY GERBER DATA
  - \*.GBS BOTTOM SOLDER MASK GERBER DATA
  - \*.GBP BOTTOM-SIDE SOLDER PASTE MASK
- 5) THE PHOTO TOOL SHALL NOT BE COMPENSATED WITHOUT PRIOR ENGINEERING APPROVAL PCB DESIGNER: RICH LOBDILL PH (805) 305-1393.

### 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.
- 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"

- 12) BASE MATERIAL IS FR4 EPOXY FBERGLASS
  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.
- 16) COPPER THEVING ON LAYERS AS NEEDED

#### COATINGS

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

### MARKING

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

## ELECTRICAL TESTING

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

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Paste				
2	Top Overlay				
3	Top Solder	Solder Resist	0.40m1l	3.5	
4	Top Layer (*.GTL)	Copper	1.40mil		
5	Dielectric1	FR-4	12.60mıl	4.8	
6	MidLayer1 (*.G1)	Copper	1.40mil		
7	Dielectric2	FR-4	10.00m1l	4.2	
8	InternalPlane1 (*.GP1)	Copper	1.40mil		
9	Dielectric3	FR-4	5.00m1l	4.2	
10	InternalPlane2 (*.GP2)	Copper	1.40mil		
11	Dielectric4	FR-4	10.00m1l	4.2	
12	InternalPlane3 (*.GP3)	Copper	1.40mıl		
13	Dielectric5	FR-4	5.00m1l	4.2	
14	InternalPlane4 (*.GP4)	Copper	1.40mil		
15	Dielectric6	FR-4	10.00m1l	4.2	
16	MidLayer2 (*.G2)	Copper	1.42mıl		
17	Dielectric 7		5.00m1l	4.2	
18	Bottom Layer (*.GBL)	Copper	1.40mıl		
19	Bottom Solder	Solder Resist	0.40m1l	3.5	
20	Bottom Overlay				
21	Bottom Paste				V/////////////////////////////////////

188.30 SPECIAL INSTRUCTIONS— PLATING AND CHAMFERING .... SEE .PDF FILE: SD-46114-400.PDF INCLUDED IN DRAWING PACKAGE 

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

NUMBER OF LAYERS -8 FINISHED THICKNESS -.062" BASE MATERIAL FR4

 GOLD IMMERSION PLATING TYPE SOLDER MASK COLOR -**BLACK** 

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Las Cumbres Observatory Global Telescope Network	Las Cumbres Observatory, Inc. 6740 Cortona Dr. Goleta, CA 93117 www.lcogt.net			
09/12/2014 Rich Lobdill	Rich Lobdill SOLE 1:1			
175-00060, NRES, RTD/TEC BOARD				
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