## NOTES (UNLESS OTHERWISE SPECIFIED):

### GENERAL

- 1) PCB IS 5-LAYER, .062" THICK.
- 2) CONSTRUCTION IS SOLDER-MASK-OVER-BARE-COPPER (SMOBC).
- 3) ACCEPTABILITY SHALL BE BASED ON IPC-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
  - \*.GP1 INTERNAL PLANE LAYER 1 GERBER DATA \*.GP2 - INTERNAL PLANE LAYER 2 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) 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 CRCUMSCRBES.
- 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

- 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.

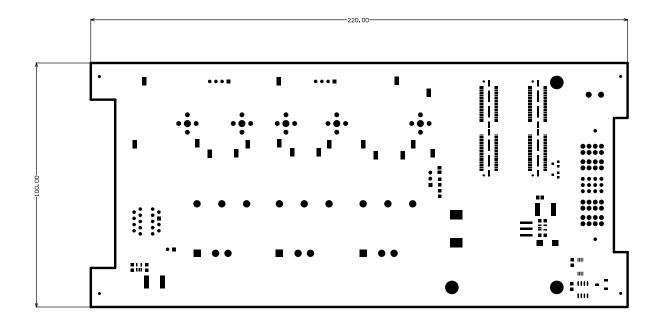
- 16) THE SOLDERMASK SHALL BE BLACK LIQUID PHOTO-IMAGEABLE PER IPC-SM-840, TYPE-B, CLASS 2.
  17) THE SOLDERMASK REGISTRATION ALLOWANCE IS 0.003". THERE SHALL BE NO SOLDERMASK ON ANY SOLDER PAD OR LAND.

- 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.

Layer Stack Up Detail for: 175-00023, rev1, PCB, Sinistro Pur Supply.PcbDoc COPPER THICKNESS TopLayer (\*.GTL) 1/2 oz, 1 oz Finished MidLayer1 (\*.G1) 1 oz AGND (\*.GP1) 1 oz GND (\*.GP2) 1 oz BottomLayer (\*GBL) 1/2 oz, 1 oz Finished



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

**BLACK** 

NUMBER OF LAYERS -.062" FINISHED THICKNESS

BASE MATERIAL FR4 GOLD IMMERSION PLATING TYPE

SOLDER MASK COLOR -

Las Cumbres Observatory, Inc. 6740 Cortona Dr. Global Telescope Network Goleta, CA 93117 www.lcogt.net 1:1 Rich Lobdill 3/16/2011 Rich Lobdill 175-00023, SINISTRO POWER SUPPLY 1 of X - GPT