

NOTES (UNLESS OTHERWISE SPECIFIED):

GENERAL

- 1) PCB IS 4-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

*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

*GBS -- BOTTOM SOLDER MASK GERBER DATA

- 5) THE PHOTO TOOL SHALL NOT BE COMPENSATED WITHOUT PRIOR ENGINEERING APPROVAL.
PCB DESIGNER: RICH LOBOLL 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: .JXX = +/- .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.
- 15.1) COPPER THEVING ON LAYERS AS NEEDED

COATINGS

- 16) THE SOLDERMASK SHALL BE CLEAR 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.

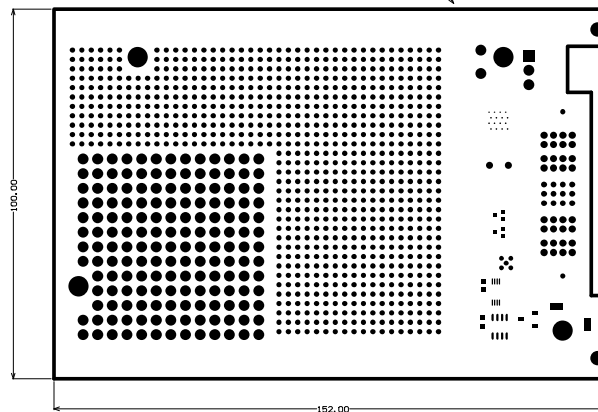
MARKING

- 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.

NOTE: D-shaped board cutouts (9 plcs)



Layer Stack Up Detail for: 175-00033, rev3, Crate Slot Power Interface.PcbDoc

| Layer Name | COPPER THICKNESS |
|-------------------------|-----------------------|
| Top Layer (*GTL) | 1/2 oz, 1 oz Finished |
| Internal Plane 1 (*GP1) | 2 oz |
| Internal Plane 2 (*GP2) | 2 oz |
| Bottom Layer (*GBL) | 1/2 oz, 1 oz Finished |

PRIMARY PCB SPECIFICATIONS

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

NUMBER OF LAYERS -- 4
FINISHED THICKNESS -- .062"
BASE MATERIAL -- FR4
PLATING TYPE -- GOLD IMMERSION
SOLDER MASK COLOR -- CLEAR

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|--|----------------------|--|----------------|
| Las Cumbres Observatory Global Telescope Network | | Las Cumbres Observatory, Inc. 6740 Cortona Dr. Goleta, CA 93117 www.lcogt.net | |
| DATE 3/6/2012 | DRAWN Rich Loboll | CHKD Rich Loboll | SCALE 1 : 1 |
| DESCRIPTION 175-00033, Crate Slot Power Interface | | | |
| REV C | REV - GPT | REV 2 | REV 1 OF X |