### NOTES (UNLESS OTHERWISE SPECIFIED):

# GENERAL

- 1) PCB IS 6-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
  - \*.G2 MID LAYER 2 GERBER DATA
  - \*.GP1 INTERNAL PLANE LAYER 1 GERBER DATA
  - \*.GP2 INTERNAL PLANE LAYER 2 GERBER DATA
  - \*GRI 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 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

- 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

- 17) THE SOLDERMASK SHALL BE RED LIQUID PHOTO-MAGEABLE PER IPC-SM-840, TYPE-B, CLASS 2.

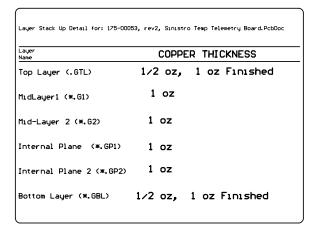
  18) THE SOLDERMASK REGISTRATION ALLOWANCE IS 0.003". THERE SHALL BE NO SOLDERMASK ON ANY SOLDER PAD OR LAND.

## 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 SOLDER PAD OR LAND.
- 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.



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

NUMBER OF LAYERS -6 FINISHED THICKNESS .062" BASE MATERIAL FR4

SOLDER MASK COLOR -

GOLD IMMERSION PLATING TYPE **BLACK** 

| WWW.lcogt.net 6/18/2013 Rich Lobdii Fase Rich Lobdii Fase 1:1 | nc. | Or. | rtona D | umbres 0<br>6740 Co<br>Goleta, Co | Las C | bservatory<br>e Network |         |  |
|---|-----|-----|---------|-----------------------------------|-------|-------------------------|---------|--|
|   |     |     | gtnet   | www.lcc                           |       |                         | DESIGNE |  |
| 175-00053, SINISTRO TEMP/TELEMETRY BOARD                      |     | RD  | Y BOAR  |                                   |       | SINISTRO                | 0053,   |  |