

SPECIFICATIONS:

ROHS COMPLIANCE NOTE: HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT  
THE EU RoHS DIRECTIVE 2002/95/EC

MATERIALS: ALL LAMINATES AND BONDING MATERIALS SHOULD BE SELECTED FROM  
IPC-4101 OR IPC-4103, MINIMUM T<sub>g</sub>>170degC, T<sub>d</sub>>300degC,  
U.L. RATING OF 94 V-0

MATERIAL FAMILY; ISOLA 370HR

CLADDING: EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ.  
~~INTERNAL SIGNAL LAYERS .5 OZ. COPPER.~~  
 INTERNAL PLANE LAYERS 1 OZ. COPPER.

NOTE: IF THE LAYER STACKUP CONFLICTS WITH THE ABOVE  
CLADDING SPECIFICATIONS THEN THE LAYER STACKUP SHALL  
TAKE PRECEDENCE.

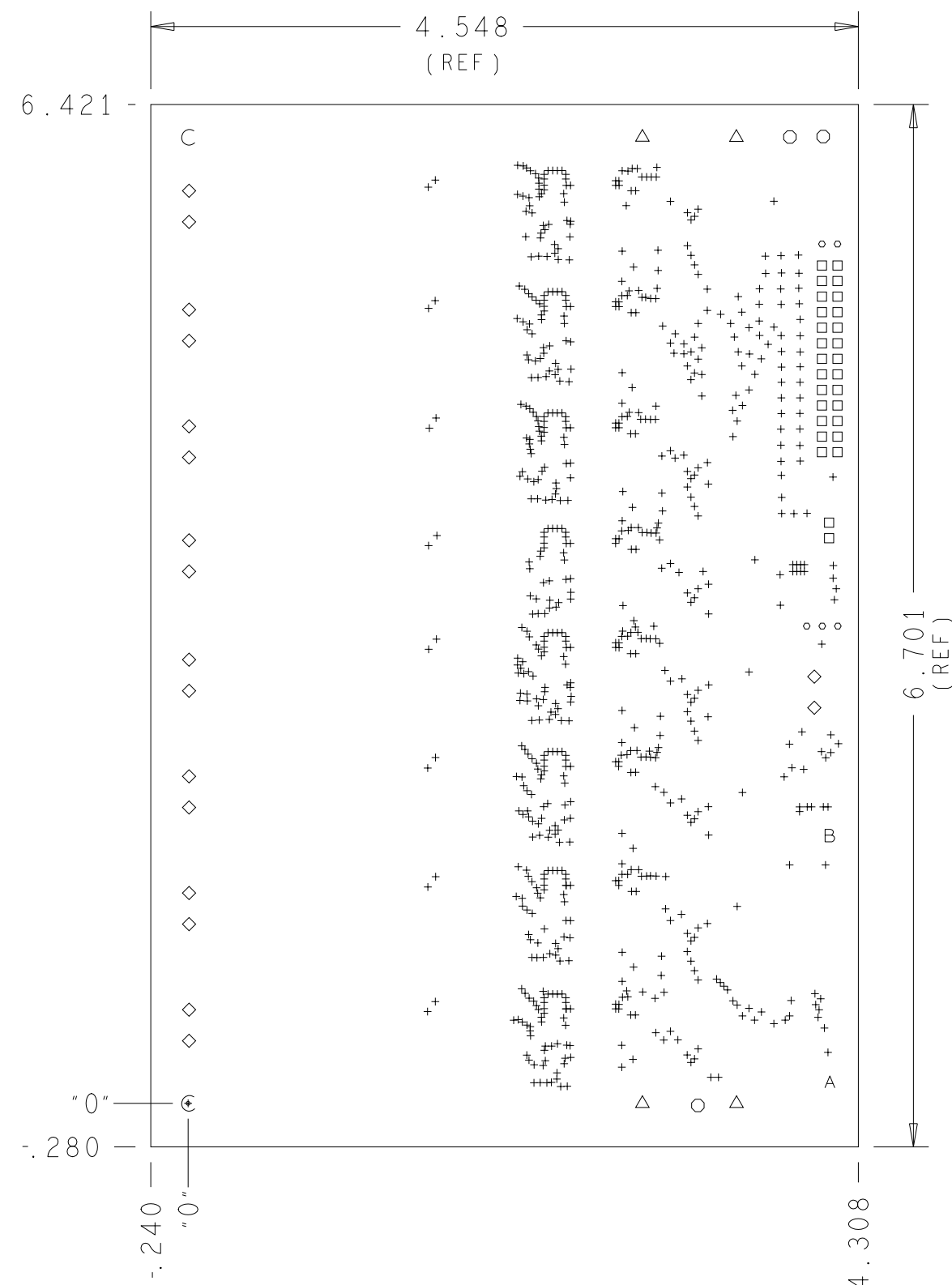
SOLDER MASK; SHALL BE LIQUID PHOTOIMAGEABLE (LPI) APPLIED ON BOTH SIDES  
OVER BARE COPPER OR GOLD AND SHALL MEET IPC-SM-840  
(LATEST REV.) CLASS 3. COLOR GREEN.

SILK SCREEN; SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR: WHITE  
SYNTHETIC INKJET PRINTING ALLOWED FOR DENSE BOARDS,  
COLOR: WHITE

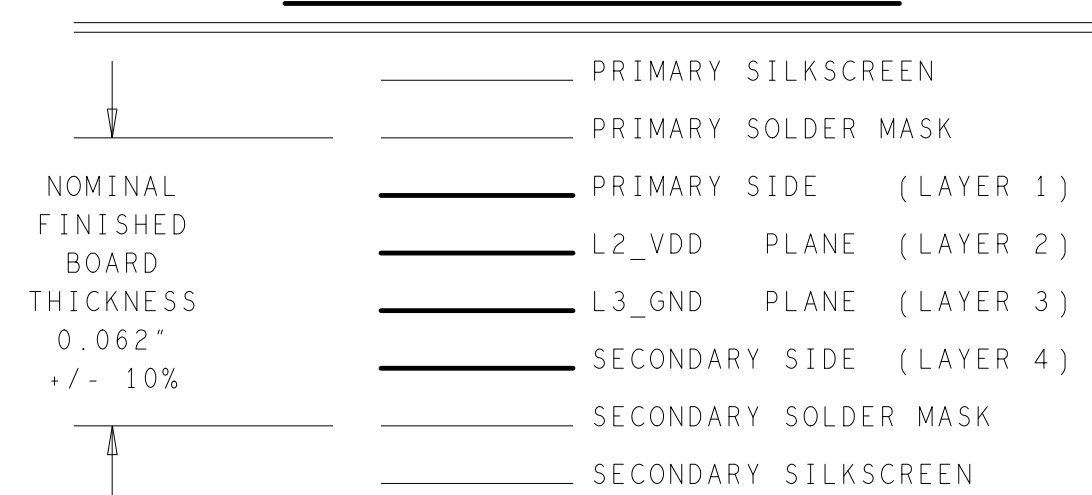
SURFACE FINISH; ENIG (ELECTROLESS NICKEL/IMMERSION GOLD)  
PER IPC-4552 LATEST REVISION

INTENTIONAL SHORTS; IF SUPPLIED DATA INCLUDES A FILE "READ\_ME.2", THEN  
INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL  
IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT  
DOES NOT MATCH "READ\_ME.2" FILE PROVIDED.

TEST REQUIREMENTS: 100% NETLIST ELECTRICAL VERIFICATION USING CUSTOMER SUPPLIED IPC-D-356 NETLIST FOR OPENS AND SHORTS WHEN "GERBER DATA" IS PROVIDED. THIS VERIFICATION ALSO REQUIRED FOR "ODB++" DATA PER EMBEDDED NETLIST.



## 4 LAYER STACKUP



## HOLE TOLERANCE

UNLESS SPECIFIED  
PLATED: +/- 3 MILS  
NON PLATED: +/- 2 MILS

| FINISHED HOLES IN MILS |       |            |     |                 |
|------------------------|-------|------------|-----|-----------------|
| ALL UNITS ARE IN MILS  |       |            |     |                 |
| FIGURE                 | SIZE  | PLATED     | QTY | TOLERANCE/NOTES |
| +                      | 10.0  | PLATED     | 754 | DIA MAX         |
| □                      | 39.4  | PLATED     | 28  |                 |
| ◦                      | 43.3  | PLATED     | 5   |                 |
| ○                      | 63.0  | PLATED     | 3   |                 |
| ◇                      | 65.0  | PLATED     | 18  |                 |
| △                      | 160.0 | PLATED     | 4   |                 |
| A                      | 27.6  | NON-PLATED | 1   |                 |
| B                      | 43.3  | NON-PLATED | 1   |                 |
| C                      | 160.0 | NON-PLATED | 2   |                 |

| REVISIONS |                   |         |          |
|-----------|-------------------|---------|----------|
| REV       | DESCRIPTION       | DATE    | APPROVED |
| A         | INITIAL RELEASE   | 11APR18 | J. HAN   |
| B         | AS PER ECR-078181 | 31AUG18 | J. HAN   |
| C         | AS PER ECR-083981 | 22JAN19 | J. HAN   |
| D         | AS PER ECR-089515 | 28OCT19 | J. HAN   |

REQUIREMENTS:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
2. ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
3. MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
4. HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
5. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
6. HOLE DIAMETERS APPLY AFTER PLATING.
7. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
8. MINIMUM DESIGN LINE WIDTH IS .0066 INCH.
9. MINIMUM DESIGN SPACING IS .0075 INCH.
- ~~10. NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
12. THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
  - A. THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
  - B. THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
13. MFR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
  - A. U.L. CODE-FLAMMABILITY RATING
  - B. DATE CODE (STAMP).
  - C. LOT NUMBER
  - D. MFR LOGO
  - E. SUCCESSFUL ELECTRICAL TEST.
14. REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.

|  |                                   |         |  |  |  |  |                  |  |                             |  |          |
|--|-----------------------------------|---------|--|--|--|--|------------------|--|-----------------------------|--|----------|
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br><br>TOLERANCES<br><br>DECIMALS   FRACTIONS   ANGLES<br>.XX   -.010   +-1/32   +- 2<br>.XXX   -.005<br>.XXXX   -.0050 | APPROVAL                          | DATE    | <div><div></div><div>ANALOG<br/>DEVICES</div></div> <div>WWM<br/>DIVISION<br/>804 WOBURN STREET<br/>WILMINGTON, MA 01887</div> |  |  |  |                  |  |                             |  |          |
|  | TEMPLATE ENGINEER<br>N/A          | N/A     |  |  |  |  |                  |  |                             |  |          |
|  | HARDWARE SERVICES<br>R. MACDONALD | 11APR18 | TITLE<br><br>FABRICATION<br>ADE1201 8-CHANNEL<br>EVAL BOARD Z  |  |  |  |                  |  |                             |  |          |
|  | HARDWARE SYSTEMS<br>N/A           | N/A     |  |  |  |  |                  |  |                             |  |          |
| TEST ENGINEER<br>N/A   | N/A                               |         |  |  |  |  |                  |  |                             |  |          |
| COMPONENT ENGINEER<br>A. CAULAN-AGENA  | 11APR18                           |         |  |  |  |  |                  |  |                             |  |          |
| MATERIAL   | TEST PROCESS<br>N/A               | N/A     | SIZE<br>C  |  |  |  | FSCM NO<br>24355 |  | DRAWING NUMBER<br>09-048916 |  | REV<br>D |
|  | HARDWARE RELEASE<br>K. JABATAN    | 11APR18 |  |  |  |  |                  |  |                             |  |          |
|  | DESIGNER<br>N. CORDOVA            | 11APR18 |  |  |  |  |                  |  |                             |  |          |
|  | PTD. ENGINEER<br>J. HAN           | 11APR18 |  |  |  |  |                  |  |                             |  |          |
| FINISH   | CHECKER<br>N/A                    | N/A     | SCALE     1/1  |  |  |  | SHEET   1 OF 1   |  |                             |  |          |
|  | DO NOT SCALE DWG                  |         |  |  |  |  |                  |  |                             |  |          |