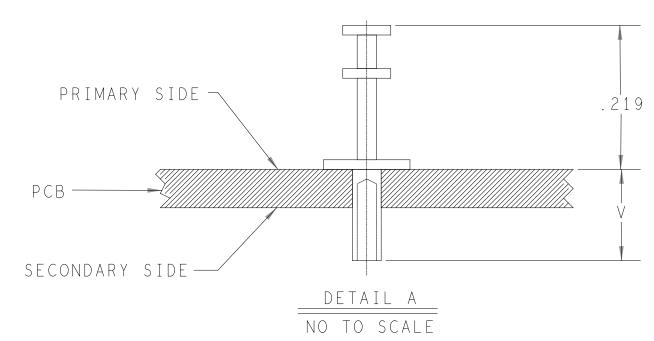
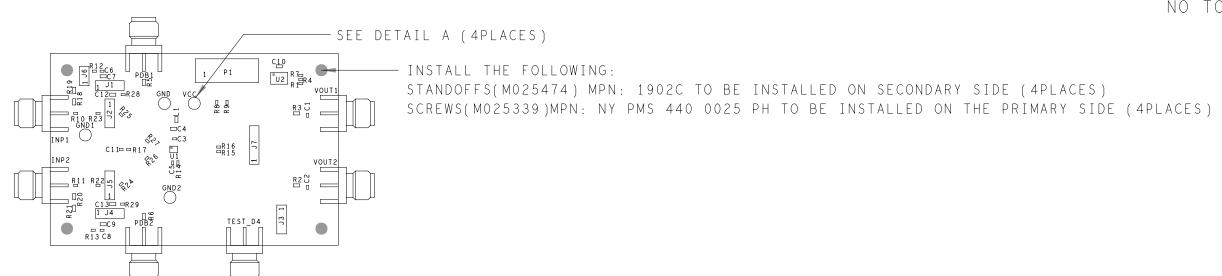
|    | 4  | 3                | <b>↓</b> | 2   |                        | 1       |            |
|----|--|------------------|----------|-----|------------------------|---------|------------|
|    | '  |                  | ¥        |     | REVISIONS              |         |            |
|    |  |                  |          | REV | DESCRIPTION            | DATE    | APPROVED   |
|    |  |                  |          | А   | INITIAL RELEASE        | 05MAR21 | W. HUANG   |
|    |  |                  |          | В   | CHANGES PER ECR-108050 | 04APR22 | B. HEMP    |
|    |  |                  |          | С   | CHANGES PER ECR-112397 | 21MAR23 | D. DEVINEN |
|    |  |                  |          | D   | CHANGES PER ECR-116603 | 18SEP23 | D. DEVINEN |
| 1. | BOARD ACCEPTABILITY PER ANALOG DEVICES, IN TST00119 (LATEST REVISION). | C. SPECIFICATION |          |     |                        |         |            |
| 2. | REPAIRS PER IPC-7711/21(LATEST REVISION) A                             | RE ALLOWED.      |          |     |                        |         |            |
| 3. | REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE                             | AREAS ON EITHER  |          |     |                        |         |            |
|    | SIDE OF THE BOARD.   |                  |          |     |                        |         |            |





# PRIMARY SIDE

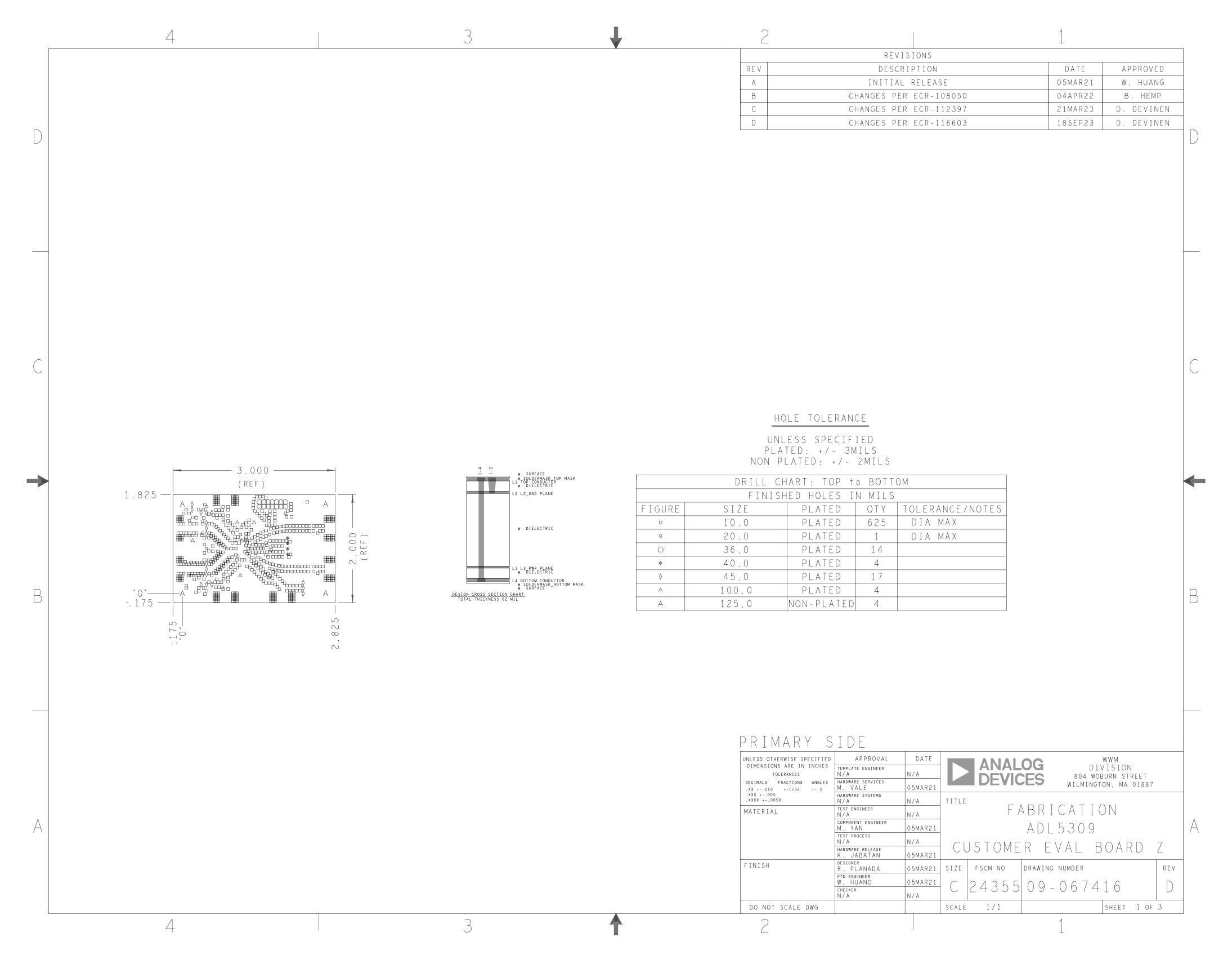
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES         | TEMPLATE ENGINEER             | DATE           |            | ANAL                |   | WWM<br>IVISION |     |  |
|---|-------------------------------|----------------|------------|---------------------|---|----------------|-----|--|
| TOLERANCES  DECIMALS FRACTIONS ANGLES  .XX +010 +-1/32 +- 2 | N/A HARDWARE SERVICES M. VALE | N/A<br>05MAR21 |            | <b>DEVIC</b>        | ES 804 WOBURN STREET WILMINGTON, MA 01887 |                |     |  |
| .XXX +005<br>.XXXX +0050                                    | HARDWARE SYSTEMS<br>N/A       | N/A            | TITLE      |                     |   |                |     |  |
| MATERIAL  | TEST ENGINEER<br>N/A          | N/A            | ] ASSEMBLY |                     |   |                |     |  |
|   | COMPONENT ENGINEER M. YAN     | 05MAR21        | ADL5309    |                     |   |                |     |  |
|   | TEST PROCESS<br>N/A           | N/A            |            | CUSTOMER EVAL BOARD |   |                |     |  |
|   | HARDWARE RELEASE K. JABATAN   | 05MAR21        |            | J                   | DUARU                                     | _              |     |  |
| FINISH  | DESIGNER<br>R. PLANADA        | 05MAR21        | SIZE       | FSCM NO             | DRAWING NUMBER                            |                | REV |  |
|   | PTD ENGINEER W. HUANG         | 05MAR21        | C          | 24355               | 01 067                                    | 116            |     |  |
|   | CHECKER<br>N/A                | N/A            |            |                     | 01-007                                    | + 1 0          |     |  |
| DO NOT SCALE DWG  |                               |                | SCALE      | 1/1                 |   | SHEET 1 OF     | 1   |  |
|   |                               |                |            |                     | А   |                |     |  |

BOARDS TO BE SHIPPED SINGULATED AFTER ASSEMBLY PROCESS.

SMOOTHEN EDGES AND FREE FROM BURRS AFTER DEPANELIZATION PROCESS.

 $\mathcal{Z}$ 

.



### 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 Tg>170degC, Td>300degC,

U.L. RATING OF 94 V-0

MATERIAL FAMILY: ISOLA370HR OR S1000-2 OR IT180 OR EQUIVALENT.

EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1 OZ. CLADDING;

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

ENIG (ELECTROLESS NICKEL/IMMERSION GOLD) SURFACE FINISH;

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.

#### REQUIREMENTS:

- REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
- ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
- MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
- HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
- PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 INCH BY CROSS SECTION.
- HOLE DIAMETERS APPLY AFTER PLATING.
- FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
- MINIMUM DESIGN LINE WIDTH IS .0045 INCH.
- MINIMUM DESIGN SPACING IS .0048 INCH.
- NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.
- IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFGR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
- 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.
- MFGR. 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 D. MFGR LOGO
  - B. DATE CODE (STAMP).
- E. SUCCESSFUL ELECTRICAL TEST.
- C. LOT NUMBER
- REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.
- LASER VIAS TO BE COPPER FILLED/PLATED SHUT AND PLANARIZED.
- BOARDS TO BE SHIPPED IN ARRAY AND KEEP INTACT.

PANEL TO BE SUBJECTED TO CUSTOMER'S APPROVAL.

PANELED SOLDER PASTE STENCIL SHOULD BE SENT TO THE CUSTOMER.

## 4 LAYER STACKUP

\_\_ PRIMARY SILKSCREEN \_ PRIMARY SOLDER MASK PRIMARY SIDE (LAYER 1) NOMINAL FINISHED L2\_GND PLANE (LAYER 2) BOARD L3\_PWR PLANE (LAYER 3) THICKNESS 0.062" \_ SECONDARY SIDE (LAYER 4) + / - 10% SECONDARY SOLDER MASK \_ SECONDARY SILKSCREEN

PRIMARY SIDE



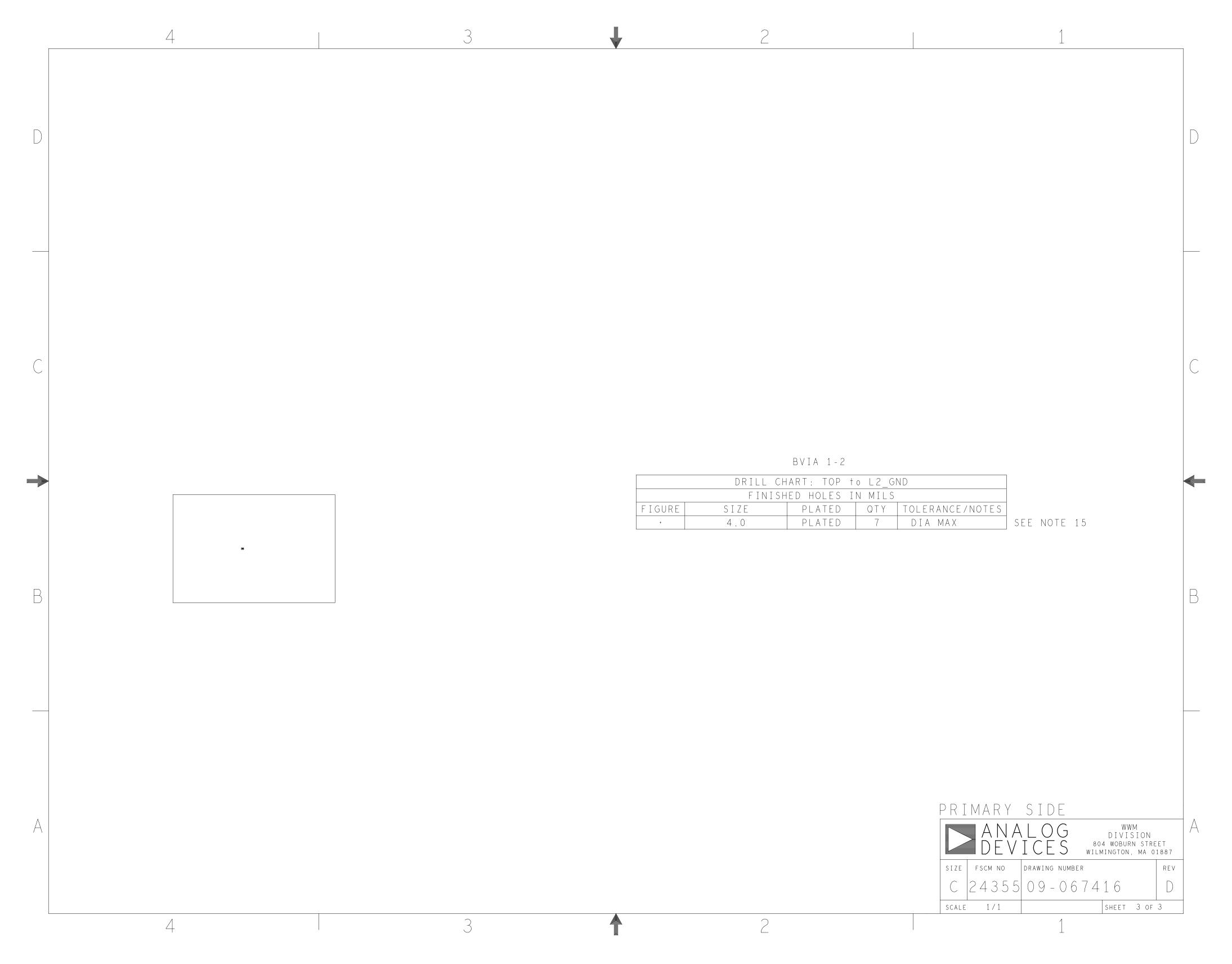
1 / 1

SCALE

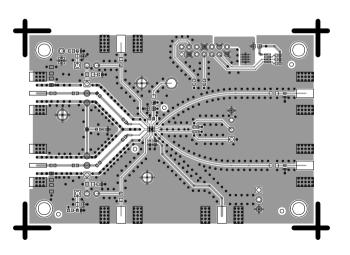
DIVISION 804 WOBURN STREET WILMINGTON, MA 01887

SIZE | FSCM NO DRAWING NUMBER C |24355| 09-067416

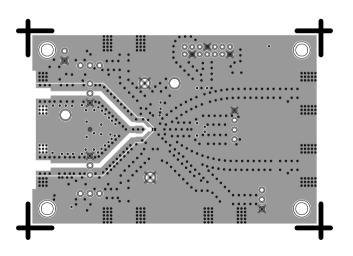
SHEET 2 OF 3



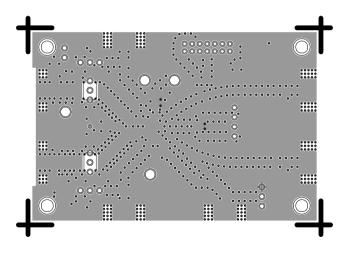
L1 PRIMARY 08-067416-01 REV D



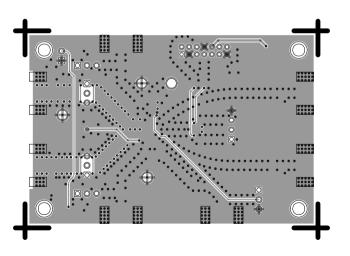
L2 GND 08-067416-07 REV D



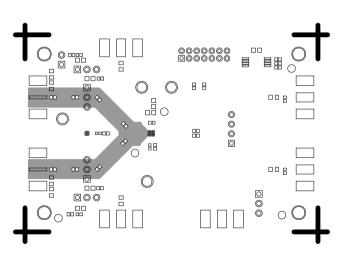
L3 PWR 08-067416-08 REV D



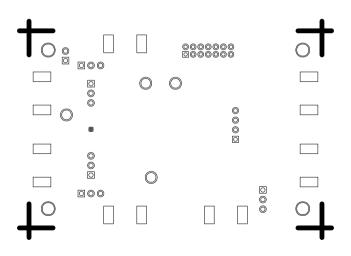
L4 SECONDARY 08-067416-02 REV D



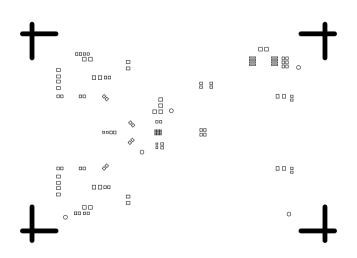
#### SOLDERMASK PRIMARY 08-067416-04 REV D



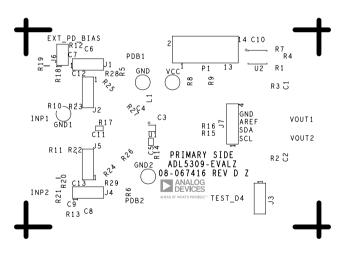
#### SOLDERMASK SECONDARY 08-067416-06 REV D



#### PASTEMASK PRIMARY 08-067416-09 REV D



#### SILKSCREEN PRIMARY 08-067416-03 REV D



#### SILKSCREEN SECONDARY 08-067416-05 REV D

