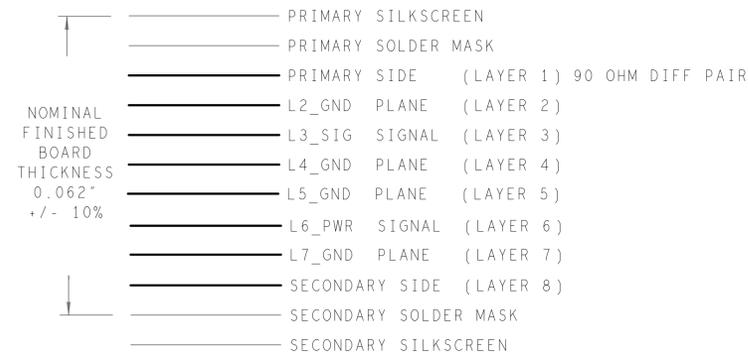


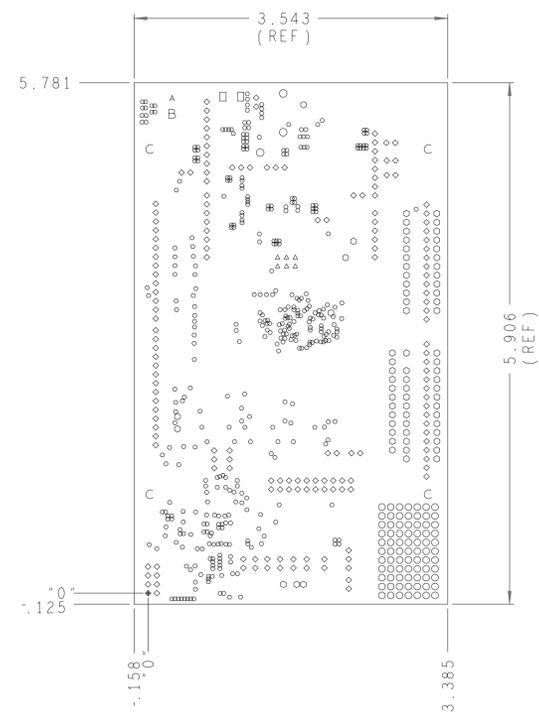
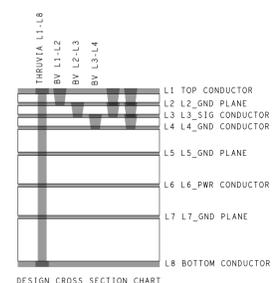
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03JUL20	A.HERNANDEZ

### 8 LAYER STACKUP



NOMINAL FINISHED BOARD THICKNESS 0.062" +/- 10%

CHARACTERISTIC IMPEDANCE = 90 OHMS +/- 10%  
ARTWORK LINE WIDTH FOR IMPEDANCE CONTROLLED LINES = 0.0045"  
DIFFERENTIAL CONTROLLED LINES SPACING = 0.009"



### 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; 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.

### 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 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 .0036 INCH (X1 AREA ONLY).
- MINIMUM DESIGN SPACING IS .004 INCH (X1 AREA ONLY).
- 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, MFR. 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:
  - THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
  - THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
- MFR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
  - U.L. CODE-FLAMMABILITY RATING
  - DATE CODE (STAMP)
  - LOT NUMBER
  - MFR LOGO
  - SUCCESSFUL ELECTRICAL TEST.
- REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED. REPAIRS ARE NOT ALLOWED IN ANY AREA DEFINED ON GOLD\_PRM AND/OR GOLD\_SEC ARTWORK LAYERS WHEN PROVIDED IN GERBER OR ODB+ DATA.
- LASER VIA TO BE COPPER FILLED AND PLATED SHUT

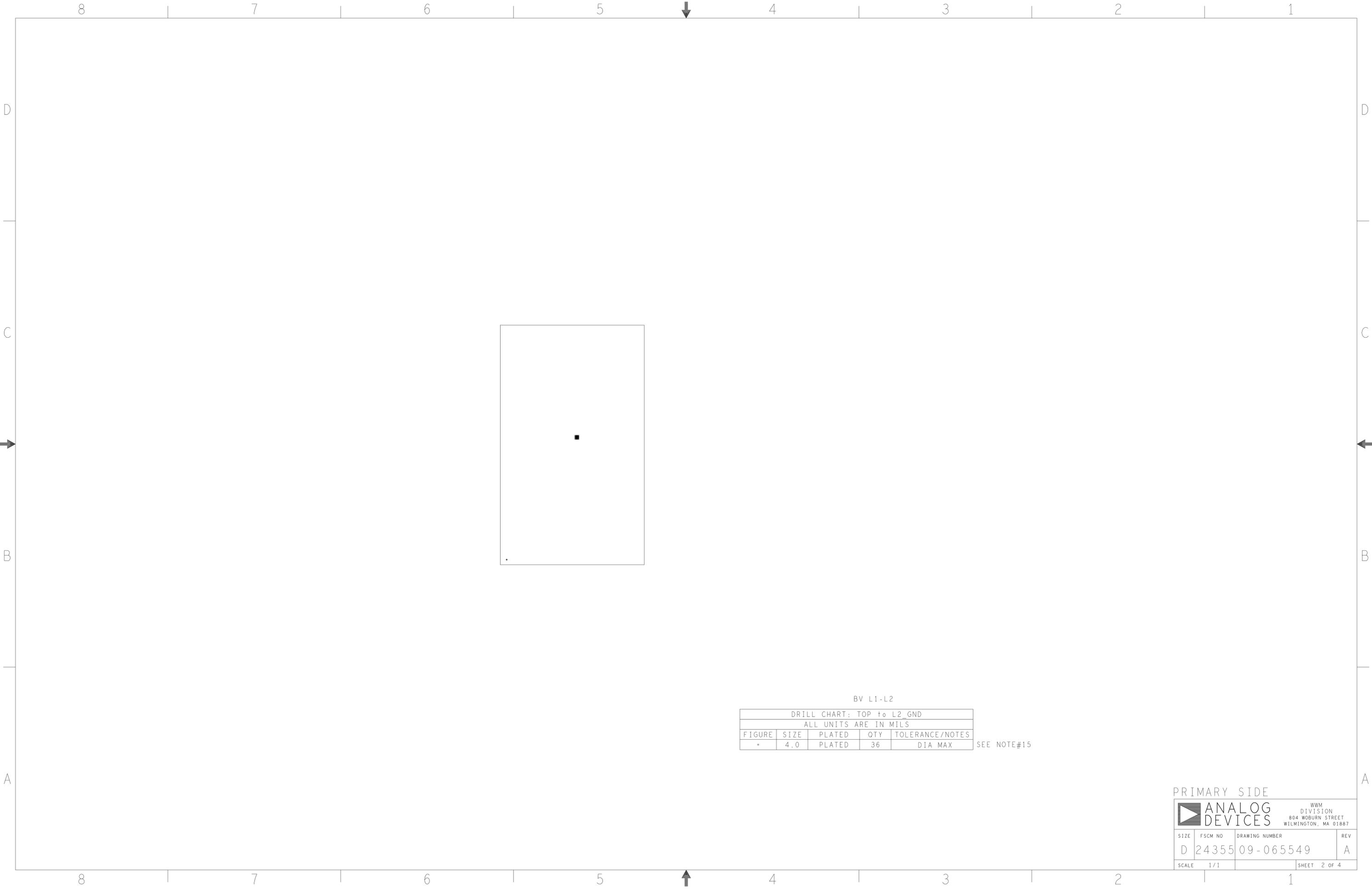
### HOLE TOLERANCE

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

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
o	10.0	PLATED	403	DIA MAX
o	20.0	PLATED	70	DIA MAX
o	35.0	PLATED	77	DIA MAX
Δ	40.0	PLATED	6	
o	45.0	PLATED	167	
□	50.0	PLATED	2	
o	63.0	PLATED	3	
A	63.0	NON-PLATED	1	
B	71.0	NON-PLATED	1	
C	125.0	NON-PLATED	4	

### PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVAL	DATE	ANALOG DEVICES		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
TOLERANCES		TEMPLATE ENGINEER		TITLE FABRICATION EVAL-ADuCM420QSP1Z			
DECIMALS	FRACTIONS	HARDWARE SERVICES	03JUL20	MATERIAL			
.XX	0/16	M. VALE		TEST ENGINEER			
.XXX	0/64	HARDWARE SYSTEMS		COMPONENT ENGINEER			
.XXXX	0/256			M. YAN			
				TEST PROCESS			
				HARDWARE RELEASE			
				K. JABATAN			
				FINISH			
				DESIGNER			
				N. CORDOVA			
				PRO-ENGINEER			
				A. HERNANDEZ			
				CHECKER			
DO NOT SCALE DWG		SCALE	1/1	DRAWING NUMBER	09-065549	REV	A
		SHEET		1 OF 4			



BV L1-L2

DRILL CHART: TOP to L2_GND				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	4.0	PLATED	36	DIA MAX

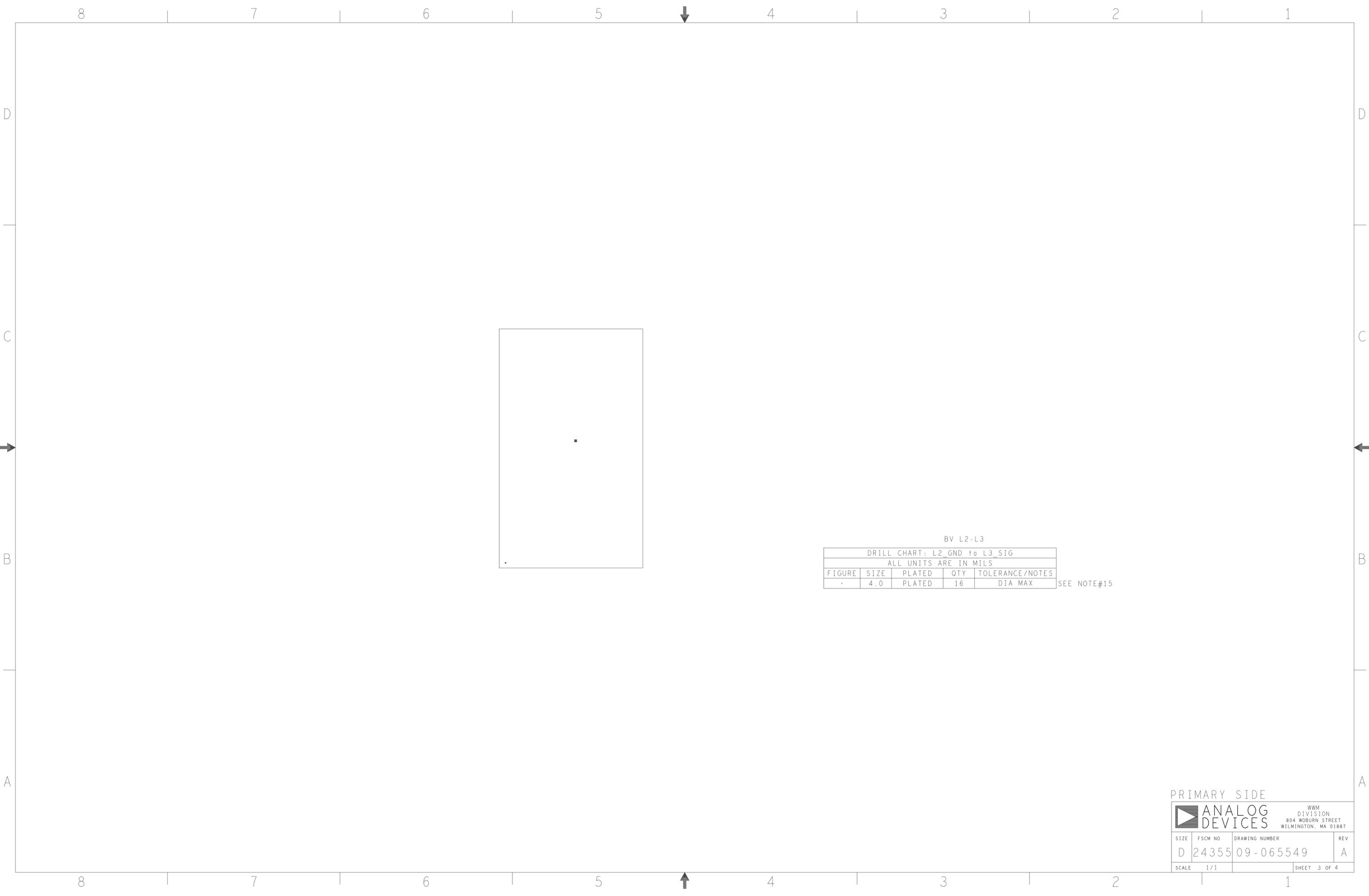
SEE NOTE#15

PRIMARY SIDE



SIZE	FSCM NO	DRAWING NUMBER	REV
D	24355	09-065549	A
SCALE	1/1		SHEET 2 OF 4

ART FILM - Tab3



BV L2-L3

DRILL CHART: L2_GND to L3_SIG				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	4.0	PLATED	16	DIA MAX SEE NOTE#15

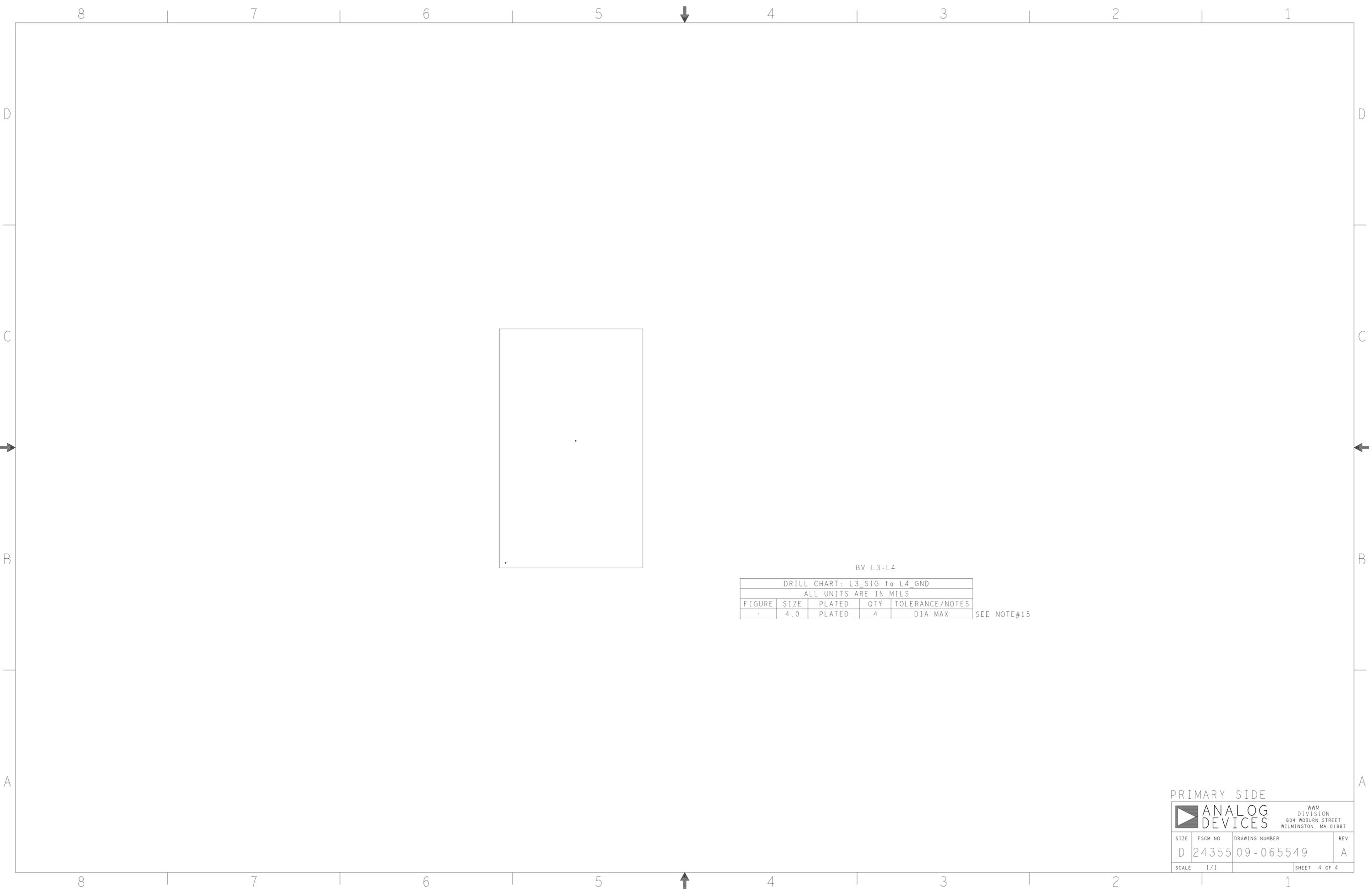
PRIMARY SIDE



WWM DIVISION  
804 WOBURN STREET  
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
D	24355	09-065549	A
SCALE 1/1		SHEET 3 OF 4	

ART FILM - Tab3



BV L3-L4

DRILL CHART: L3 SIG to L4_GND				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	4.0	PLATED	4	DIA MAX

SEE NOTE#15

PRIMARY SIDE



WWM  
DIVISION  
804 WOBURN STREET  
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
D	24355	09-065549	A

SCALE 1/1 SHEET 4 OF 4