

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	31MAY21	M. KWOK
B	CHANGES AS PER ECR-105260	26NOV21	M. KWOK
C	CHANGES AS PER ECR-108678	30MAY22	M. KWOK
D	CHANGES AS PER ECR-114205	12MAY23	M. KWOK
D1	CHANGES AS PER ECR-118504	20DEC23	M. KWOK


DESIGN CROSS SECTION CHART
TOTAL THICKNESS 62 MIL

HOLE TOLERANCE

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

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	8.0	PLATED	50	DIA MAX/NOTE#14
.	10.0	PLATED	629	DIA MAX/NOTE#14
.	16.0	PLATED	33	DIA MAX/NOTE#14
◇	40.0	PLATED	6	
◦	45.0	PLATED	37	
	46.0	PLATED	3	
◦	63.0	PLATED	4	
◻	65.0	PLATED	5	
◦	67.0	PLATED	12	
○	100.0	PLATED	9	
△	50.0	NON-PLATED	2	+2/-0MILS
B	125.0	NON-PLATED	4	

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div>ANALOG DEVICES</div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>							
TOLERANCES			TEMPLATE ENGINEER											
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES M. VALE		31MAY21		TITLE FABRICATION EV-ADAQ7767-1FMC1Z CUSTOMER EVAL Z							
.XX --.010	--1/32	-- 2	HARDWARE SYSTEMS											
.XXX --.005														
.XXXX --.0050														
MATERIAL			TEST ENGINEER				SIZE							
			COMPONENT ENGINEER N. CATALAN		12MAY23									
			TEST PROCESS											
			HARDWARE RELEASE K. JABATAN		31MAY21									
FINISH			DESIGNER E. DELOS REYES		31MAY21						FSCM NO			
			PTD ENGINEER M. KWOK		31MAY21						DRAWING NUMBER			
			CHECKER				REV							
DO NOT SCALE DWG							SCALE		1/1		SHEET 1 OF 3			

4

3

2

1

D

C

B

A

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.

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:

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 INCH 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 .005 INCH.

9. MINIMUM DESIGN SPACING IS .005 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. SELECTED VIAS TO BE FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER.

15. LASER VIAS TO BE FILLED WITH COPPER/PLATED SHOT AND PLANARIZED.

16. BOARDS TO BE SHIPPED IN ARRAYS AND KEEP INTACT. PANEL TO BE SUBJECTED TO CUSTOMER'S APPROVAL. PANELED SOLDER PASTE STENCIL SHOULD BE SENT TO THE CUSTOMER.

17. REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.

4 LAYER STACKUP

NOMINAL FINISHED BOARD THICKNESS 0.062" +/- 10%

PRIMARY SILKSCREEN

PRIMARY SOLDER MASK

PRIMARY SIDE (LAYER 1)

L2_GND PLANE (LAYER 2)

L3_PWR PLANE (LAYER 3)

SECONDARY SIDE (LAYER 4)

SECONDARY SOLDER MASK

SECONDARY SILKSCREEN

PRIMARY SIDE

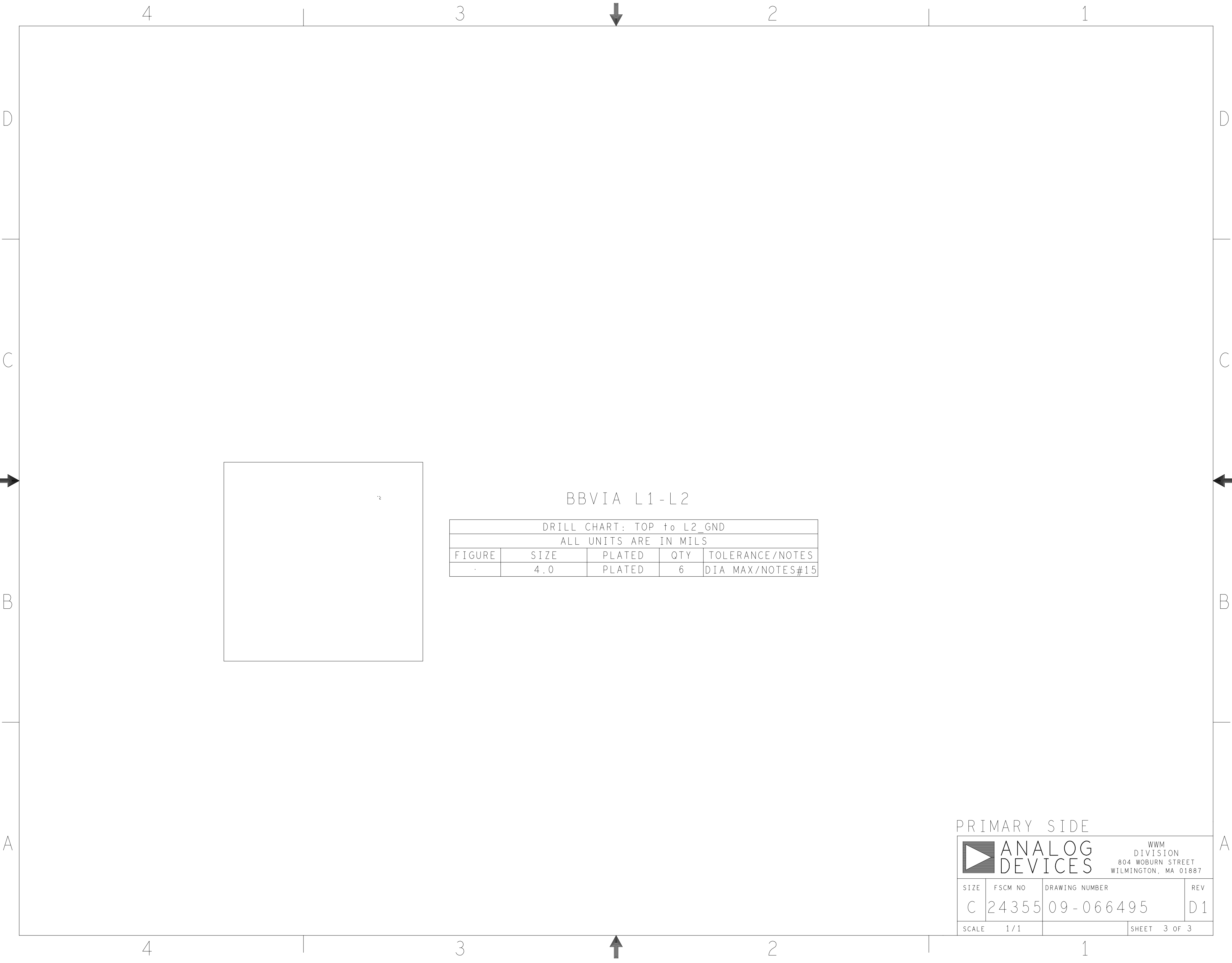
ANALOG DEVICES

WWM DIVISION

804 WOBURN STREET

WILMINGTON, MA 01887

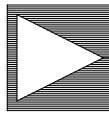
SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-066495	D1
SCALE	1 / 1		SHEET 2 OF 3



BBVIA L1-L2

DRILL CHART: TOP to L2_GND				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	4.0	PLATED	6	DIA MAX/NOTES#15

PRIMARY SIDE



ANALOG
DEVICES

WWM
DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-066495	D1
SCALE	1 / 1		SHEET 3 OF 3