

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	28DEC22	L.VENENOSO

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
□	6.0	PLATED	3	DIA MAX/NOTE20
+	10.0	PLATED	511	DIA MAX/NOTE20
△	10.1	PLATED	111	DIA MAX/NOTE20
○	14.0	PLATED	48	DIA MAX/NOTE20
A	80.0	NON-PLATED	2	

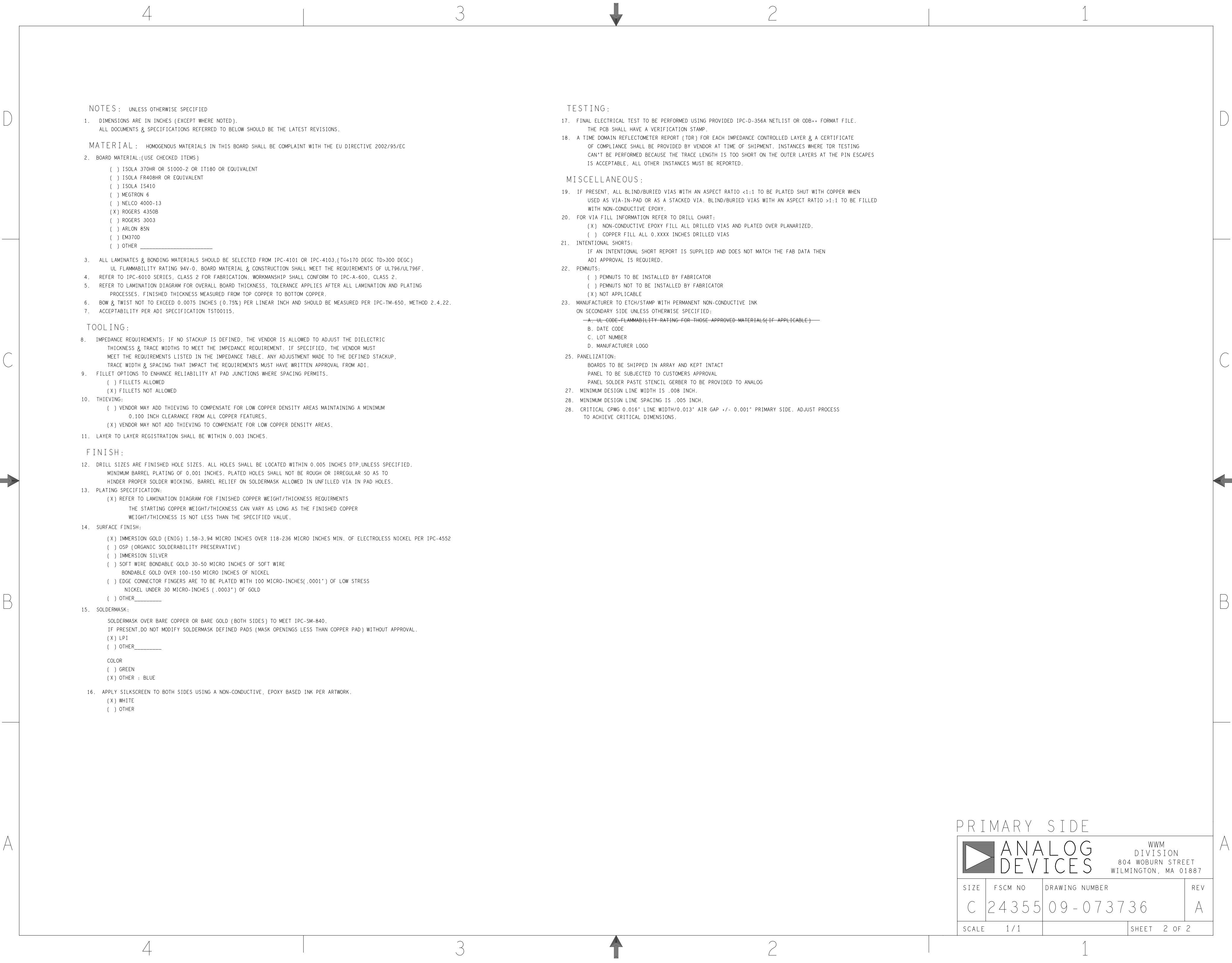
IMPEDANCE TABLE

CPW = COPLANAR WAVEGUIDE; SE = SINGLE ENDED

LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACE
L1	50 OHMS CPW	L2	16 MILS	13 MILS

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES XX -.010 +-1/32 +- 2 XXX -.005 XXXX -.0050			APPROVAL		DATE		<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>			
			TEMPLATE ENGINEER							
MATERIAL			HARDWARE SERVICES M. VALE		28DEC22		TITLE FABRICATION ADL8100-EVAL1Z CUSTOMER EVALUATION Z			
			HARDWARE SYSTEMS							
			TEST ENGINEER							
FINISH			COMPONENT ENGINEER N. BUENAFLOR		28DEC22					
			TEST PROCESS							
			HARDWARE RELEASE K. JABATAN		28DEC22					
DO NOT SCALE DWG			DESIGNER E. DELOS REYES		28DEC22		SIZE	FSCM NO	DRAWING NUMBER	REV
			PTD ENGINEER L. VENENOSO		28DEC22		C	24355	09-073736	A
			CHECKER				SCALE	1/1		



NOTES :

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED).  
ALL DOCUMENTS & SPECIFICATIONS REFERRED TO BELOW SHOULD BE THE LATEST REVISIONS.

MATERIAL :

2. BOARD MATERIAL:(USE CHECKED ITEMS)
- ( ) ISOLA 370HR OR S1000-2 OR IT180 OR EQUIVALENT  
( ) ISOLA FR408HR OR EQUIVALENT  
( ) ISOLA IS410  
( ) MEGTRON 6  
( ) NELCO 4000-13  
(X) ROGERS 4350B  
( ) ROGERS 3003  
( ) ARLON 85N  
( ) EM370D  
( ) OTHER \_\_\_\_\_
3. ALL LAMINATES & BONDING MATERIALS SHOULD BE SELECTED FROM IPC-4101 OR IPC-4103.(TG>170 DEGC TD>300 DEGC)  
UL FLAMMABILITY RATING 94V-0. BOARD MATERIAL & CONSTRUCTION SHALL MEET THE REQUIREMENTS OF UL796/UL796F.
4. REFER TO IPC-6010 SERIES, CLASS 2 FOR FABRICATION. WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2.
5. REFER TO LAMINATION DIAGRAM FOR OVERALL BOARD THICKNESS, TOLERANCE APPLIES AFTER ALL LAMINATION AND PLATING PROCESSES. FINISHED THICKNESS MEASURED FROM TOP COPPER TO BOTTOM COPPER.
6. BOW & TWIST NOT TO EXCEED 0.0075 INCHES (0.75%) PER LINEAR INCH AND SHOULD BE MEASURED PER IPC-TM-650, METHOD 2.4.22.
7. ACCEPTABILITY PER ADI SPECIFICATION TST00115.

TOOLING :

8. IMPEDANCE REQUIREMENTS: IF NO STACKUP IS DEFINED, THE VENDOR IS ALLOWED TO ADJUST THE DIELECTRIC THICKNESS & TRACE WIDTHS TO MEET THE IMPEDANCE REQUIREMENT. IF SPECIFIED, THE VENDOR MUST MEET THE REQUIREMENTS LISTED IN THE IMPEDANCE TABLE. ANY ADJUSTMENT MADE TO THE DEFINED STACKUP, TRACE WIDTH & SPACING THAT IMPACT THE REQUIREMENTS MUST HAVE WRITTEN APPROVAL FROM ADI.
9. FILLET OPTIONS TO ENHANCE RELIABILITY AT PAD JUNCTIONS WHERE SPACING PERMITS.  
( ) FILLETS ALLOWED  
(X) FILLETS NOT ALLOWED
10. THIEVING:  
( ) VENDOR MAY ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS MAINTAINING A MINIMUM 0.100 INCH CLEARANCE FROM ALL COPPER FEATURES.  
(X) VENDOR MAY NOT ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS.
11. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.003 INCHES.

FINISH:

12. DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN 0.005 INCHES DTP,UNLESS SPECIFIED.  
MINIMUM BARREL PLATING OF 0.001 INCHES. PLATED HOLES SHALL NOT BE ROUGH OR IRREGULAR SO AS TO HINDER PROPER SOLDER WICKING. BARREL RELIEF ON SOLDERMASK ALLOWED IN UNFILLED VIA IN PAD HOLES.
13. PLATING SPECIFICATION:  
(X) REFER TO LAMINATION DIAGRAM FOR FINISHED COPPER WEIGHT/THICKNESS REQUIRMENTS  
THE STARTING COPPER WEIGHT/THICKNESS CAN VARY AS LONG AS THE FINISHED COPPER WEIGHT/THICKNESS IS NOT LESS THAN THE SPECIFIED VALUE.
14. SURFACE FINISH:  
(X) IMMERSION GOLD (ENIG) 1.58-3.94 MICRO INCHES OVER 118-236 MICRO INCHES MIN. OF ELECTROLESS NICKEL PER IPC-4552  
( ) OSP (ORGANIC SOLDERABILITY PRESERVATIVE)  
( ) IMMERSION SILVER  
( ) SOFT WIRE BONDABLE GOLD 30-50 MICRO INCHES OF SOFT WIRE  
BONDABLE GOLD OVER 100-150 MICRO INCHES OF NICKEL  
( ) EDGE CONNECTOR FINGERS ARE TO BE PLATED WITH 100 MICRO-INCHES( .0001" ) OF LOW STRESS NICKEL UNDER 30 MICRO-INCHES ( .0003" ) OF GOLD  
( ) OTHER\_\_\_\_\_
15. SOLDERMASK:  
SOLDERMASK OVER BARE COPPER OR BARE GOLD (BOTH SIDES) TO MEET IPC-SM-840.  
IF PRESENT,DO NOT MODIFY SOLDERMASK DEFINED PADS (MASK OPENINGS LESS THAN COPPER PAD) WITHOUT APPROVAL.  
(X) LPI  
( ) OTHER\_\_\_\_\_
- COLOR  
( ) GREEN  
(X) OTHER : BLUE
16. APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, EPOXY BASED INK PER ARTWORK.  
(X) WHITE  
( ) OTHER

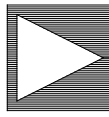
TESTING:

17. FINAL ELECTRICAL TEST TO BE PERFORMED USING PROVIDED IPC-D-356A NETLIST OR ODB++ FORMAT FILE.  
THE PCB SHALL HAVE A VERIFICATION STAMP.
18. A TIME DOMAIN REFLECTOMETER REPORT (TDR) FOR EACH IMPEDANCE CONTROLLED LAYER & A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED BY VENDOR AT TIME OF SHIPMENT. INSTANCES WHERE TDR TESTING CAN'T BE PERFORMED BECAUSE THE TRACE LENGTH IS TOO SHORT ON THE OUTER LAYERS AT THE PIN ESCAPES IS ACCEPTABLE. ALL OTHER INSTANCES MUST BE REPORTED.

MISCELLANEOUS :

19. IF PRESENT, ALL BLIND/BURIED VIAS WITH AN ASPECT RATIO <1:1 TO BE PLATED SHUT WITH COPPER WHEN USED AS VIA-IN-PAD OR AS A STACKED VIA. BLIND/BURIED VIAS WITH AN ASPECT RATIO >1:1 TO BE FILLED WITH NON-CONDUCTIVE EPOXY.
20. FOR VIA FILL INFORMATION REFER TO DRILL CHART:  
(X) NON-CONDUCTIVE EPOXY FILL ALL DRILLED VIAS AND PLATED OVER PLANARIZED.  
( ) COPPER FILL ALL 0.XXXX INCHES DRILLED VIAS
21. INTENTIONAL SHORTS:  
IF AN INTENTIONAL SHORT REPORT IS SUPPLIED AND DOES NOT MATCH THE FAB DATA THEN ADI APPROVAL IS REQUIRED.
22. PEMNUTS:  
( ) PEMNUTS TO BE INSTALLED BY FABRICATOR  
( ) PEMNUTS NOT TO BE INSTALLED BY FABRICATOR  
(X) NOT APPLICABLE
23. MANUFACTURER TO ETCH/STAMP WITH PERMANENT NON-CONDUCTIVE INK  
ON SECONDARY SIDE UNLESS OTHERWISE SPECIFIED:  
~~A. UL CODE-FLAMMABILITY RATING FOR THOSE APPROVED MATERIALS(IF APPLICABLE)~~  
B. DATE CODE  
C. LOT NUMBER  
D. MANUFACTURER LOGO
25. PANELIZATION:  
BOARDS TO BE SHIPPED IN ARRAY AND KEPT INTACT  
PANEL TO BE SUBJECTED TO CUSTOMERS APPROVAL  
PANEL SOLDER PASTE STENCIL GERBER TO BE PROVIDED TO ANALOG
27. MINIMUM DESIGN LINE WIDTH IS .008 INCH.
28. MINIMUM DESIGN LINE SPACING IS .005 INCH.
28. CRITICAL CPWG 0.016" LINE WIDTH/0.013" AIR GAP +/- 0.001" PRIMARY SIDE. ADJUST PROCESS TO ACHIEVE CRITICAL DIMENSIONS.

PRIMARY SIDE

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SIZE	FSCM NO	DRAWING NUMBER		REV	
C	24355	09-073736		A	
SCALE	1 / 1			SHEET 2 OF 2	