


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	24OCT22	D. HARRINGTON
B	CHANGES AS PER ECR-113417	21MAR23	D. HARRINGTON

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	967	DIA MAX
◇	12.0	PLATED	490	DIA MAX
△	16.0	PLATED	14	
○	29.0	PLATED	10	
◊	63.0	PLATED	4	
A	35.0	NON-PLATED	6	
B	125.0	NON-PLATED	8	
°	48.0x24.0	PLATED	4	

SEE NOTE 20  
SEE NOTE 20

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVAL	DATE	 WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
TOLERANCES		TEMPLATE ENGINEER			
DECIMALS	FRACTIONS	HARDWARE SERVICES M. VALE	24OCT22	TITLE FABRICATION ADSP21835W-EV-SOM CUSTOMER EVALUATION Z	
.XX --.010	--1/32	HARDWARE SYSTEMS			
.XXX --.005	--				
.XXXX --.0050	--				
MATERIAL	TEST ENGINEER			SIZE C	
	COMPONENT ENGINEER D. TAMISEN		24OCT22		
	TEST PROCESS				
FINISH	HARDWARE RELEASE K. JABATAN		24OCT22	FSCM NO 24355	
	DESIGNER K. MOYO		24OCT22		
	PTD ENGINEER D. HARRINGTON		24OCT22		
DO NOT SCALE DWG				DRAWING NUMBER 09-071515	
				REV B	
				SHEET 1 OF 2	

NOTES: UNLESS OTHERWISE SPECIFIED

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

ROHS COMPLIANCE NOTE:

HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT WITH  
THE EU RoHS DIRECTIVE 2002/95/EC

MATERIAL : (USE CHECKED ITEMS)

2. BOARD MATERIAL:
- (X) ISOLA 370HR OR EQUIVALENT
  - ( ) ISOLA-FR408HR OR EQUIVALENT
  - ( ) ISOLA 15410
  - ( ) MEGTRON 6
  - ( ) NELCO-4000-13
  - ( ) ROGERS 4350B
  - ( ) ROGERS 3003
  - ( ) ARLO 18N
  - ( ) 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 T5T00115.

TOOLING:

8. IMPEDANCE REQUIREMENT: 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 REQUIREMENTS  
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
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  
( ) WLCSP  
( ) LDI  
COLOR  
( ) GREEN  
(X) BLUE  
( ) RED  
( ) BLACK
16. APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, EPOXY BASED INK PER ARTWORK.  
(X) WHITE  
( ) YELLOW  
( ) RED

TESTING:

17. FINAL ELECTRICAL TESTS 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 0.008 AND 0.012 INCHES DRILLED VIAS
  - ( ) COPPER FILL ALL 0.0008 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 IN AREA PROVIDED:
  - A. UL CODE-FLAMMABILITY RATING FOR THOSE APPROVED MATERIALS( IF APPLICABLE )
  - B. DATE CODE
  - C. LOT NUMBER
  - D. MANUFACTURER LOGO
24. MINIMUM DESIGN LINE WIDTH IS .003 INCH  
MINIMUM DESIGN SPACING IS .00325 INCH

FAB NOTES REVISION: 12TH OF SEPTEMBER 2022

LAMINATION DIAGRAM				
LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ, INCH)	DIELECTRIC THICKNESS (INCH)	MATERIALS
1	TOP	1.5 OZ, 0.002"		FINAL CU (THICKNESS AFTER PLATING)
			0.005	ISOLA 370HR/EQUIVALENT
2	L2_PWR	1 OZ, 0.0014"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
3	L3_GND	1 OZ, 0.0014"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
4	L4_SIG	0.5 OZ, 0.0007"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
5	L5_SIG	0.5 OZ, 0.0007"		CU CLAD
			0.0068	ISOLA 370HR/EQUIVALENT
6	L6_PWR	1 OZ, 0.0014"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
7	L7_SIG	0.5 OZ, 0.0007"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
8	L8_SIG	0.5 OZ, 0.0007"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
9	L9_GND	1 OZ, 0.0014"		CU CLAD
			0.005	ISOLA 370HR/EQUIVALENT
10	BOTTOM	1.5 OZ, 0.002"		FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 0.062" +/-10%

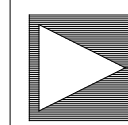
## IMPEDANCE TABLE

NOTE: ALL IMPEDANCE TOLERANCE  $\pm 10\%$

SE = SINGLE ENDED, DP = DIFFERENTIAL PAIR

LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACE
L1	50 OHMS SE	L2	5.5 MILS	N/A
L1	90 OHMS DP	L2	5.25 MILS	4.75 MILS
L4	50 OHMS SE	L3	5 MILS	N/A
L4	100 OHMS DP	L3	3 MILS	7 MILS
L5	50 OHMS SE	L6	5 MILS	N/A
L7	50 OHMS SE	L6	5 MILS	N/A
L8	50 OHMS SE	L9	5 MILS	N/A
L10	50 OHMS SE	L9	5.5 MILS	N/A
L10	100 OHMS DP	L9	3.5 MILS	7.5 MILS
L10	90 OHMS DP	L9	5.25 MILS	4.75 MILS

## PRIMARY SIDE

ANALOG  
DEVICES

WWM  
DIVISION  
804 WOBURN STREET  
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-071515	B
SCALE	1/1		SHEET 2 OF 2