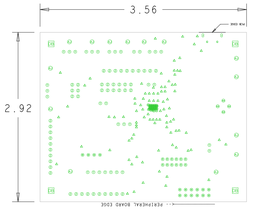
REVISIONS			
REV	DESCRIPTION	APPROVED	DATE

ANALOG DEVICES

HARDWARE NAME: MAX22522_EVKIT_B	
HARDWARE NUMBER:	
ENGINEER: SHASTA THOMAS	DESIGNER: JASON ALTSULER
DATE: 06/10/2025	ODB++/GERBER FAB NOTES



LAMINATION DIAGRAM				
LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ,INCH)	DIELECTRIC THICKNESS (INCH)	MATERIALS
1	TOP	1 OZ, 0.0012"		FINAL CU (THICKNESS AFTER PLATING)
			TBD	ISOLA 370HR/EQUIVALENT
2	INTERNAL2	0.5 OZ, 0.0007"		CU CLAD
			TBD	ISOLA 370HR/EQUIVALENT
3	INTERNAL3	0.5 OZ, 0.0007"		CU CLAD
			TBD	ISOLA 370HR/EQUIVALENT
4	BOTTOM	1 OZ, 0.0012"		FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 0.0625" +/-0.010"

DRILL CHART: TOP to BOTTOM					
ALL UNITS ARE IN MILS					
FIGURE	SIZE	TOLERANCE	PLATED	QTY	NOTES
㉕	4.0	+0.0/-4.0	PLATED	37	
△	10.0	+3.0/-8.0	PLATED	91	
ⓤ	31.4961	+3.0/-3.0	PLATED	12	
ⓦ	41.3386	+3.0/-3.0	PLATED	16	
ⓨ	43.31	+3.0/-3.0	PLATED	33	
㉗	45.28	+3.0/-3.0	PLATED	48	
㉙	47.24	+3.0/-3.0	PLATED	4	
㉛	62.99	+3.0/-3.0	PLATED	14	
㉝	187.01	+3.0/-3.0	NON-PLATED	4	
㉟	33.46x25.59	+3.0/-3.0	PLATED	2	
㊱	59.06x32.48	+3.0/-3.0	PLATED	2	

NOTES: UNLESS OTHERWISE SPECIFIED

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

MATERIAL: (USE CHECKED ITEMS)

2. BOARD MATERIAL:
   (X) ISOLA 370HR OR EQUIVALENT
   ( ) ISOLA-FR408HR OR EQUIVALENT
   ( ) ISOLA I5410
   ( ) MEGTRON 6
   ( ) NELCO-4000-13
   ( ) ROGERS 4350B
   ( ) ROGERS 3003
   ( ) 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.
    ( ) 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

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
    (X) GREEN
    ( ) OTHER_____

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 0.004 INCHES DRILLED VIAS
    ( ) 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 BOTTOM LEGEND LAYER. CREATE BOTTOM LEGEND IF LAYER NOT PRESENT.
    A. UL CODE-FLAMMABILITY RATING FOR THOSE APPROVED MATERIALS(IF APPLICABLE)
    B. DATE CODE
    C. LOT NUMBER
    D. MANUFACTURER LOGO

24. ROHS COMPLIANCE NOTE:
    (REQUIRED FOR CUSTOMER BOARDS) ADD TO TOP OF MATERIALS
    HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT WITH THE EU RoHS DIRECTIVE 2002/95/EC

FAB NOTES REVISION: 21TH OF NOVEMBER 2022

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRACTIONS +/- 1/64 | DECIMALS .XX +/- .01, .XXX +/- .005 | ANGLES +/- 1/2°

MATERIAL: SEE NOTES

FINISH: SEE NOTES

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ANALOG DEVICES

DRAWN BY: JASON A	DATE: 06/10/2025	
CHECKED BY:	DATE:	
APPR. BY:	DATE:	
APPR. BY:	DATE:	

HARDWARE NAME: MAX22522_EVKIT_B

HARDWARE NUMBER: XX-XXXXX-XXX | REV B

NOT TO SCALE | TEMPLATE REV: | SHEET 1 OF 1