M10 Fab Notes

DESIGN INFORMATION	
MIN. TRACK WIDTH:	4 MIL
MIN. CLEARANCE:	5 MIL
MIN. VIA PAD SIZE:	18 MIL

MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL
HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 3 MIL

MATERIAL:
- [ ] **HYBRID STACKUP** [X] **UNIFORM STACKUP**
- [X] FR4-408
- [ ] Megtron 4 **OR** Isola I-Speed
- [ ] Megtron6 **OR** Isola MT-40 **OR** Nelco MW-1000
- [ ] OTHER _____

THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER 92 MIL +/-10%
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2 [ ] OTHER +/- _____
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2 [ ] OTHER +/- _____
DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH COPPER THICKNESS: [X] 20-30 um [ ] OTHER _____
BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER _____
SOLDER RESIST COLOR: [ ] GREEN [X] OTHER RED
[X] MATTE [ ] SEMI-GLOSS
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] HARD GOLD (30u)
[ ] OTHER _____
ARRAY/PANEL: [X] CUT AND TRIM PER M1 BOARD OUTLINE
[ ] N.C. ROUTE [ ] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] RoHS [ ] OTHER PER ORDER

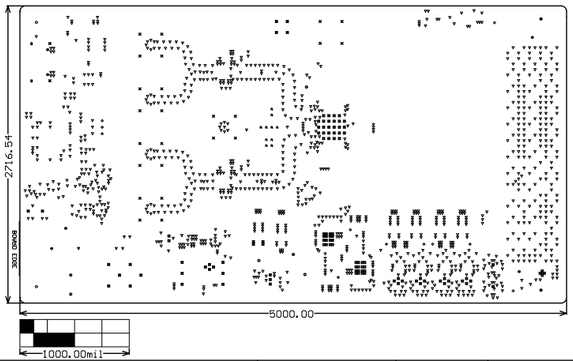
ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.
PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER

ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER

- [X] 16 MIL & SMALLER VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE
- [X] OUTER LAYER TRACKS 9 MIL WIDE REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE
- [X] OUTER LAYER TRACKS 6 MIL WDE WITH 4 MIL AIR GAP REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE
- [ ] INNER LAYER XX & XX TRACKS XX MIL WIDE REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE
- [ ] INNER LAYER TRACKS XX MIL WDE WITH XX MIL SPACE REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Template	Description	Hole Tolerance (+)	Hole Tolerance (-)
▽	1	39.76mil (1.010mm)	PTH	Slot	Top Layer - Bottom Layer	Pad	Rounded	r490_170h101_356r85			
✱	2	25.59mil (0.650mm)	NPTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c65hn65m65p0			
⊕	2	29.92mil (0.760mm)	PTH	Slot	Top Layer - Bottom Layer	Pad	Rounded	r360_150h76_305r75			
⊙	2	50.00mil (1.270mm)	NPTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c127hn127			
⊟	2	55.12mil (1.400mm)	PTH	Slot	Top Layer - Bottom Layer	Pad	Rounded Rectangle	r100_180h140_60r50m100_180p0			
⊠	2	66.93mil (1.700mm)	PTH	Slot	Top Layer - Bottom Layer	Pad	Rounded Rectangle	r100_210h170_60r50m100_210p0			
⊕	2	105.91mil (2.690mm)	NPTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c0hn269m10			
○	2	125.98mil (3.200mm)	NPTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c320hn320m320p0			
○	6	63.00mil (1.600mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c22fh160			
⊠	8	40.00mil (1.016mm)	PTH	Round	Top Layer - Bottom Layer	Pad	(Mixed)	(Mixed)			
∧	10	15.00mil (0.381mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c64h38m0mx0			
✖	10	47.24mil (1.200mm)	PTH	Round	Top Layer - Bottom Layer	Pad	(Mixed)	(Mixed)			
◇	11	28.00mil (0.711mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c104h71			
✖	24	66.93mil (1.700mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c260h170x260p0			
⊠	94	7.87mil (0.200mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	(Mixed)			
▽	1259	8.00mil (0.203mm)	PTH	Round	Top Layer - Bottom Layer	(Mixed)	Rounded	(Mixed)			
	1437 Total										

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB Layout



Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0.40mil	3.5	
1	Top Layer		1.40mil		
	Dielectric 1	FR408HR	4.50mil	3.54	
2	L2 GND	CF-004	1.40mil		
	Dielectric 3	FR408HR	3.20mil	3.54	
3	L3 SIG	CF-004	1.40mil		
	Dielectric 9	FR408HR	3.20mil	3.54	
4	L4 GND	CF-004	1.40mil		
	Dielectric 7	FR408HR	3.20mil	3.54	
5	L5 PWR	CF-004	1.40mil		
	Dielectric 5	FR408HR	3.20mil	3.54	
6	L6 GND	CF-004	1.40mil		
	Dielectric 11	FR408HR	3.20mil	3.54	
	Dielectric1	FR408HR	3.20mil	3.54	
	Dielectric 12	FR408HR	3.20mil	3.54	
7	L7 GND	CF-004	1.40mil		
	Dielectric 6	FR408HR	3.20mil	3.54	
8	L8 PWR	CF-004	1.40mil		
	Dielectric 8	FR408HR	3.20mil	3.54	
9	L9 GND	CF-004	1.40mil		
	Dielectric 10	FR408HR	3.20mil	3.54	
10	L10 PWR	CF-004	1.40mil		
	Dielectric 4	FR408HR	3.20mil	3.54	
11	L11 GND	CF-004	1.40mil		
	Dielectric 2	FR408HR	4.50mil	3.54	
12	Bottom Layer		1.40mil		
	Bottom Solder	Solder Resist	0.40mil	3.5	
	Bottom Overlay				

Total board thickness: 61.80mil

TEXAS INSTRUMENTS

PROJECT TITLE:	ADC3669EVM DC-Coupled
DESIGNED FOR:	Public Release
FILE NAME:	ADC3669EVM DC-Coupled RevB.PcbDoc

ENGINEER:	GBR	LAYOUT BY:	GBR
SCALE: 1.00		ALTIUM DESIGNER VERSION:	24.7.2.38

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: DC374	REV: A	SUN REV: 70289eb0071cabd93bfafab9244b26c8c6d1ef00 [Locally Modified]
LAYER NAME = M2 Silkscreen Top			
PLOT NAME = Fabrication Drawing	GENERATED : 5/29/2025 2:10:38 PM	TEXAS INSTRUMENTS	

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