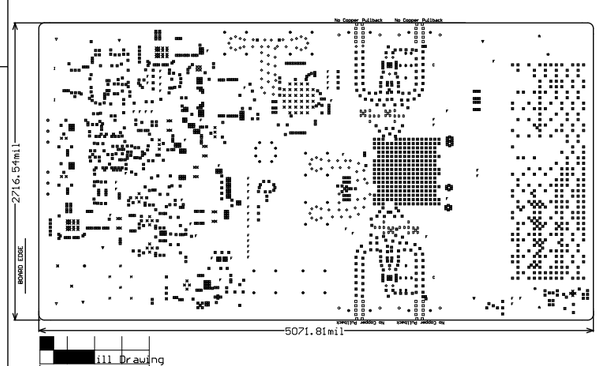
Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0.40mil	3.5	
1	Top Layer		1.40mil		
	Dielectric 1	Itera-mt40	6.00mil	3.33	
2	L2 GND1	CF-004	1.40mil		
	Dielectric 2	FR4-370HR	3.00mil	3.72	
3	L3 PWR1	CF-004	1.40mil		
	Dielectric 3	FR4-370HR	3.00mil	3.72	
4	L4 GND2	CF-004	1.40mil		
	Dielectric 4	FR4-370HR	3.00mil	3.86	
5	L5 PWR2	CF-004	1.40mil		
	Dielectric 5	FR4-370HR	3.00mil	3.72	
6	L6 GND3	CF-004	1.40mil		
	Dielectric 6	FR4-370HR	3.00mil	3.86	
7	L7 Ctrl Signal 1	CF-004	1.40mil		
	Dielectric 8	FR4-370HR	3.00mil	3.72	
	Dielectric 7	FR4-370HR	3.00mil	3.72	
8	L8 GND4	CF-004	1.40mil		
	Dielectric 9	FR4-370HR	6.00mil	3.86	
9	L9 GND5	CF-004	1.40mil		
	Dielectric 11	FR4-370HR	3.00mil	3.72	
	Dielectric 10	FR4-370HR	3.00mil	3.72	
10	L10 Ctrl Signal 2	CF-004	1.40mil		
	Dielectric 12	FR4-370HR	3.00mil	3.86	
11	L11 GND6	CF-004	1.40mil		
	Dielectric 13	FR4-370HR	3.00mil	3.72	
12	L12 PWR3	CF-004	1.40mil		
	Dielectric 14	FR4-370HR	3.00mil	3.86	
13	L13 GND7	CF-004	1.40mil		
	Dielectric 15	FR4-370HR	3.00mil	3.72	
14	L14 PWR4	CF-004	1.40mil		
	Dielectric 16	FR4-370HR	3.00mil	3.72	
15	L15 GND8	CF-004	1.40mil		
	Dielectric 17	Itera-mt40	6.00mil	3.33	
16	Bottom Layer		1.40mil		
	Bottom Solder	Solder Resist	0.40mil	3.5	
	Bottom Overlay				

Total board thickness: 83.20mil

Symbol	Quantity	Finished Hole Size	Plated	Hole Type	Drill Layer Pair	Hole Tolerance
	2	50.00mil (1.270mm)	NPTH	Round	Top Layer - Bottom Layer	
	2	105.91mil (2.690mm)	NPTH	Round	Top Layer - Bottom Layer	
	2	125.98mil (3.200mm)	NPTH	Round	Top Layer - Bottom Layer	
	119	7.87mil (0.200mm)	PTH	Round	Top Layer - Bottom Layer	
	1558	8.00mil (0.203mm)	PTH	Round	Top Layer - Bottom Layer	
	92	10.00mil (0.254mm)	PTH	Round	Top Layer - Bottom Layer	
	40	12.00mil (0.305mm)	PTH	Round	Top Layer - Bottom Layer	
D	40	12.99mil (0.330mm)	PTH	Round	Top Layer - Bottom Layer	
B	12	15.00mil (0.381mm)	PTH	Round	Top Layer - Bottom Layer	
	8	15.75mil (0.400mm)	PTH	Round	Top Layer - Bottom Layer	
F	57	28.00mil (0.711mm)	PTH	Round	Top Layer - Bottom Layer	
	6	40.00mil (1.016mm)	PTH	Round	Top Layer - Bottom Layer	
	3	42.91mil (1.090mm)	PTH	Round	Top Layer - Bottom Layer	
H	6	47.24mil (1.200mm)	PTH	Round	Top Layer - Bottom Layer	
	5	63.00mil (1.600mm)	PTH	Round	Top Layer - Bottom Layer	
	32	66.93mil (1.700mm)	PTH	Round	Top Layer - Bottom Layer	
	8	81.00mil (2.057mm)	PTH	Round	Top Layer - Bottom Layer	
C	2	84.00mil (2.134mm)	PTH	Round	Top Layer - Bottom Layer	
I	2	27.56mil (0.700mm)	PTH	Slot	Top Layer - Bottom Layer	
	2	29.92mil (0.760mm)	PTH	Slot	Top Layer - Bottom Layer	
	1	39.76mil (1.010mm)	PTH	Slot	Top Layer - Bottom Layer	
	1999 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



M10 Fab Notes

DESIGN INFORMATION

MIN. TRACK WIDTH: 4 MIL
MIN. CLEARANCE: 3.5 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:
☐ FR-408 ☒ ISOLA FR4-370HR (or Equivalent)
☐ Meg4 ☐ Isola I-Speed
☒ Meg6 (or Equivalent)
☐ OTHER _____
THICKNESS: ☐ 62 MIL (1.6mm) +/-10% ☒ OTHER 81 MIL +/-10%
TOLERANCE: ☒ ANSI IPC-6012 TYPE 3 CLASS 2
☐ OTHER +/- _____
BOW & TWIST: ☒ ANSI IPC-6012 TYPE 3 CLASS 2
☐ OTHER +/- _____

DRILLING:
REFERENCE: ☒ AS SHOWN ☒ NC_DRILL FILES
PTH COPPER THICKNESS: ☒ 20-30 um ☐ OTHER _____
BOARD FINISH:
SILKSCREEN: ☒ TOP ☒ BOTTOM
SILKSCREEN COLOR: ☐ WHITE ☒ OTHER WHITE
SOLDER RESIST COLOR: ☐ GREEN ☒ OTHER RED
☒ MATTE ☐ SEMI-GLOSS
SURFACE FINISH: ☒ IMMERSION GOLD (ENIG) ☐ ENEPIG
☐ IMM. TIN/SILVER OR EQUIV ☐ HARD GOLD (30u)
☐ OTHER _____
ARRAY/PANEL: ☒ 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:
☒ ANSI IPC-A-600F CLASS --> ☐ 1 ☒ 2 ☐ 3
☒ 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 ☒ REQUIRED ☐ PER ORDER
☒ 16 MIL & SMALLER VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE
☒ OUTER LAYER TRACKS 12.3 MIL WDE REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE
☒ OUTER LAYER TRACKS 6.25 MIL WDE WITH 3.5 MIL AIR GAP REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE
☐ INNER LAYER XX & XX TRACKS XX MIL WIDE REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE
☒ INNER LAYER 10 TRACKS 4 MIL WIDE WITH 5 MIL AIR GAP REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE
☒ EDGE CONNECTORS AND GND ON LAYER BELOW MUST BE PULLED TO EDGE OF THE BOARD, NO PULL-BACK.

TEXAS INSTRUMENTS

PROJECT TITLE:	DAC39RF12EVM
DESIGNED FOR:	Public Release
FILE NAME:	DAC39RF12 EVM RevC.PcbDoc
ENGINEER:	Kramer
LAYOUT BY:	GBR
SCALE:	1.00
ALTIUM DESIGNER VERSION:	24.7.2.38

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: DC296	REV: C	SVN REV: 19d4981ddb086ff8bf54eda0da4b712757db4ff1 [Locally Modified]
LAYER NAME = M10 Board Dimensions			
PLOT NAME = Fabrication Drawing	GENERATED : 3/24/2025 9:57:25 AM	TEXAS INSTRUMENTS	

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