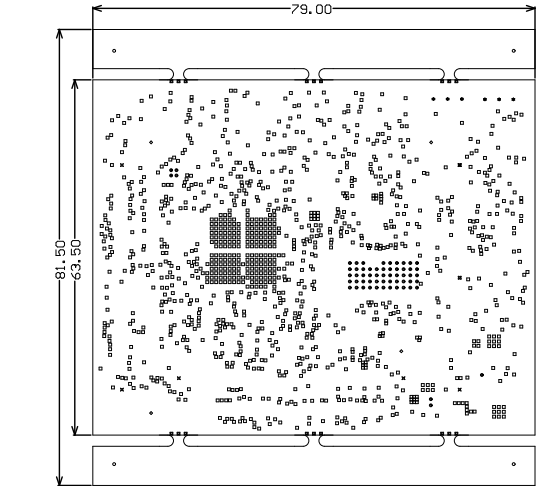


Symbol	Count	Hole Size	Hole Length	Plated	Hole Type	Drill Layer Pair	Hole Tolerance (+)	Hole Tolerance (-)
⊙	60	7.87mil (0.200mm)	-	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
□	1226	8.00mil (0.203mm)	-	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
■	18	32.00mil (0.813mm)	-	NPTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⌘	6	40.00mil (1.016mm)	-	NPTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	2	40.16mil (1.020mm)	-	NPTH	Round	Top Layer - Bottom Layer	2.00mil (0.051mm)	2.00mil (0.051mm)
✱	6	45.28mil (1.150mm)	-	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
◇	4	159.00mil (4.039mm)	-	NPTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
○	4	160.00mil (4.064mm)	-	NPTH	Round	Top Layer - Bottom Layer	2.00mil (0.051mm)	2.00mil (0.051mm)
	1326 Total							

IMPEDANCE TABLE :

LAYER	TRACE WIDTH	SPACING	IMPEDANCE +/- 10%	REFERENCE LAYER
TOP	5.8 MILS	•	50 OHM	LAYER-2 (GND LAYER)
TOP	4.25 MILS	7.15 MILS	100 OHM	LAYER-2 (GND LAYER)
TOP	4.2 MILS	4.4 MILS	90 OHM	LAYER-2 (GND LAYER)
L3	3.6 MILS	•	50 OHM	LAYER-2 / LAYER-4
L3	3.2 MILS	7.5 MILS	100 OHM	LAYER-2 / LAYER-4
L8	3.6 MILS	•	50 OHM	LAYER-7/LAYER-9
L8	3.7 MILS	6 MILS	90 OHM	LAYER-7/LAYER-9
L8	3.2 MILS	7.5 MILS	100 OHM	LAYER-7/LAYER-9
BOTTOM	5.8 MILS	•	50 OHM	LAYER-9(GND LAYER)
BOTTOM	4.25 MILS	7.15 MILS	100 OHM	LAYER-9(GND LAYER)
BOTTOM	4.2 MILS	4.4 MILS	90 OHM	LAYER-9(GND LAYER)



NOTES:

1. BOARD SHALL MEET THE REQUIREMENTS OF UL-796E WITH FLAMMABILITY RATING OF MINIMUM 94V-0. UL LOGO, MANUFACTURER'S IDENTIFICATION AND DATE CODE LETTER SHALL BE RENDERED IN SILKSCREEN.
2. VENDOR MAY ADJUST SOLDERMASK WHEREVER SOLDERMASK PADS ARE THE SAME SIZE (1:1) AS PER THE MANUFACTURING CAPABILITIES AND ALL OTHER SOLDER MASK PADS SHALL NOT BE MODIFIED, PROVIDED NO ADJACENT COPPER IS EXPOSED AND NO CONFLICT IS PRODUCED WITH ANY STATED "VIA TENTING/COVERING" REQUIREMENTS.
3. MANUFACTURER'S IDENTIFICATION/DATE CODE LETTER ALONG WITH UL94V-0 UL REGISTERED MATERIAL ID NUMBER SHALL BE SILKSCREENED ON SOLDER SIDE OF THE BOARD.
4. LAYER TO LAYER REGISTRATION SHALL BE WITHIN +/-2 MIL.
5. REFER IMPEDANCE TABLE FOR IMPEDANCE CONTROL TRACES ON LAYER 1, 3, 5, 8 & 10.
6. ALL VIAS ARE TENTED ON BOTH SIDES UNLESS OTHERWISE SOLDER MASK OPENED IN GERBER.

SCALE : NTS

Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	2.00mil	3.9	
1	Top Layer		1.85mil		
	Dielectric 2	FR-4	3.70mil	3.79	
2	L02_GND1		1.26mil		
	Dielectric 4	FR-4	4.00mil	4.4	
3	L03_SIG1		1.26mil		
	Dielectric 6	FR-4	6.59mil	4.13	
4	L04_GND2	CF-001	1.26mil		
	Dielectric 8	FR-4	5.00mil	4.21	
5	L05_PWR1	CF-004	1.26mil		
	Dielectric 10	PP-006	6.09mil	4.13	
	Dielectric 1	Composite dielectric	1.88mil	4.13	
	Dielectric 11	PP-006	6.09mil	4.13	
6	L06_PWR2	CF-004	1.26mil		
	Dielectric 9	FR-4	5.00mil	4.21	
7	L07_GND3	CF-001	1.26mil		
	Dielectric 7	FR-4	6.59mil	4.13	
8	L08_SIG2		1.26mil		
	Dielectric 5	FR-4	4.00mil	4.4	
9	L09_GND4		1.26mil		
	Dielectric 3	FR-4	3.70mil	3.79	
10	Bottom Layer		1.85mil		
	Bottom Solder	Solder Resist	2.00mil	3.9	
	Bottom Overlay				

DESIGN INFORMATION

MIN. TRACK WIDTH: 3.2 MIL
MIN. CLEARANCE: 3.4 MIL
MIN. VIA PAD SIZE: 18 MIL

MINIMUM ANNULAR RING 0.05mm (2ML) 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 ☒ FR-4 High Tg ☐ OTHER

THICKNESS: ☐ 62 ML (1.6mm) +/-10% ☒ OTHER 70.4 MILS

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
SOLDER RESIST COLOR: ☒ GREEN ☐ OTHER
☐ MATTE ☒ SEMI-GLOSS

SURFACE FINISH: ☒ IMMERSION GOLD (ENIG) ☐ ENERPIC
☐ IMM. TIN/SILVER OR EQUIV
☐ 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:
BARE BOARD ELEC. TEST: ☐ NONE ☐ REQUIRED ☒ PER ORDER

OUTER LAYERS 6 MIL WIDE, 6 MIL SPACE
TRACES REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE
INNER LAYERS 5 MIL WIDE, 7 MIL SPACE
TRACES REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE
OUTER LAYERS 6.1 MIL WIDE, 6 MIL SPACE
TRACES REQUIRE 90 OHM DIFFERENTIAL IMPEDANCE

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: PROC195	REV: E1	SUN REV: 327 [Locally Modified]
LAYER NAME = Mechanical Dimensions	TID #: N/A		
PLOT NAME = Fabrication Drawing	GENERATED : 26-06-2024 12:31:57		TEXAS INSTRUMENTS