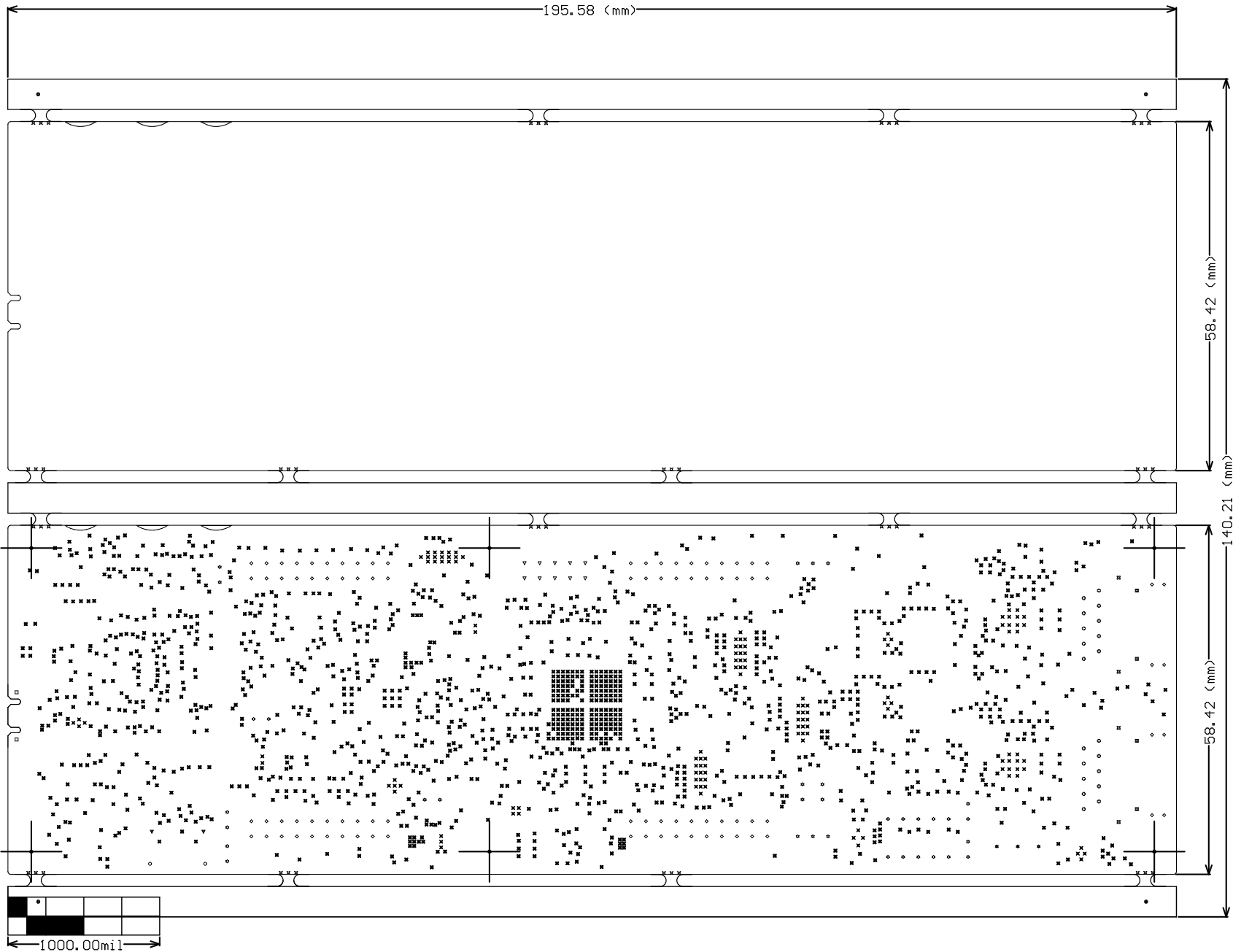


IMPEDANCE SPECIFICATIONS

LAYERS	IMPEDANCE<50 Ohms> WIDTH	IMPEDANCE<90 Ohms>		IMPEDANCE<100 Ohms>		REFERENCE LAYER
		WIDTH	SPACE	WIDTH	SPACE	
TOP	5.3 MIL	4.2 MIL	5 MIL	4 MIL	7.7 MIL	L2
SIG1	4 MIL	4 MIL	6 MIL	3.5 MIL	8.1 MIL	L2
BOTTOM	5.3 MIL	4.2 MIL	5 MIL	4 MIL	7.7 MIL	L5

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Hole Tolerance (+)	Hole Tolerance (-)
⊗	128	7.67mil (0.200mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	1595	8.00mil (0.203mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
□	2	23.62mil (0.600mm)	PTH	Slot	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	48	32.00mil (0.813mm)	NPTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	20	35.43mil (0.900mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
▽	10	38.37mil (1.000mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
☆	34	40.00mil (1.016mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
◇	98	40.16mil (1.020mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
★	3	47.24mil (1.200mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
▽	2	62.99mil (1.600mm)	PTH	Slot	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	4	66.93mil (1.700mm)	PTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	2	82.68mil (2.100mm)	PTH	Slot	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	10	126.00mil (3.200mm)	NPTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	4	127.95mil (3.250mm)	NPTH	Round	Top Layer - Bottom Layer	3.00mil (0.076mm)	3.00mil (0.076mm)
⊗	1950 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
	Top Overlay			
	Top Solder	Taiyo PSR 4000 HFX DI-GREEN	1.00mil	3.5
1	Top Layer	Copper Foil 18 microns	2.09mil	
	Dielectric 1	Iteq IT180A Prepreg 2113 RC58	3.51mil	4.13
2	GND 1		1.26mil	
	Dielectric 3	Iteq IT180A 4 mil core 1/1	4.00mil	4.4
3	SIG 1		1.26mil	
	Dielectric 5	Composite dielectric	1.75mil	3.79
	Dielectric 6	Composite dielectric	2.66mil	3.86
	Dielectric1	Iteq IT180A 28 mil core H/H	28.00mil	4.53
	Dielectric 7	Composite dielectric	2.66mil	3.86
	Dielectric 8	Composite dielectric	1.75mil	3.79
4	SIG 2		1.26mil	
	Dielectric 4	Iteq IT180A 4 mil core 1/1	4.00mil	4.4
5	GND 2		1.26mil	
	Dielectric 2	Iteq IT180A Prepreg 2113 RC58	3.51mil	4.13
6	Bottom Layer	Copper Foil 18 microns	2.09mil	
	Bottom Solder	Taiyo PSR 4000 HFX DI-GREEN	1.00mil	3.5
	Bottom Overlay			

DESIGN INFORMATION

MIN. TRACK WIDTH: 3.4 MIL  
MIN. CLEARANCE: 3.2 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 ☒ FR-4 High Tg ☐ OTHER  
THICKNESS: ☒ 62 MIL (1.6mm) +/-10% ☐ OTHER  
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 RED  
☒ MATTE ☐ SEMI-GLOSS

SURFACE FINISH: ☒ IMMERSION GOLD (ENIG) ☐ ENEPIG  
☐ 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:  
MICROSECTION: ☐ YES  
BARE BOARD ELEC. TEST: ☐ NONE ☒ REQUIRED ☐ PER ORDER  
☐ XX MIL VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE  
☐ XX MIL VIAS REQUIRE CONDUCTIVE FILL AND PLANARIZE  
☐ OUTER XX MIL TRACES REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE  
☐ LAYER 2 & 3 (INNER LAYERS) XX MIL WIDE, XX MIL SPACE  
TRACES REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE



PROJECT TITLE:  
AM263P Launchpad  
DESIGNED FOR:  
TEXAS INSTRUMENTS  
FILE NAME:  
PROC171E2.PcbDoc

ENGINEER:  
Shrinivas/Rakesh  
LAYOUT BY:  
MISTRAL  
SCALE: 1.00  
ALTUM DESIGNER VERSION:  
22.8.2.66

ALL ARTWORK VIEWED FROM TOP SIDE  
BOARD #: PROC171  
REV: E2  
SUN REV: 67 [Locally Modified]  
LAYER NAME = Fabrication Drawing  
TID #: N/A  
PLOT NAME = Fabrication Drawing  
GENERATED : 12/27/2023 12:12:04 PM  
TEXAS INSTRUMENTS

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