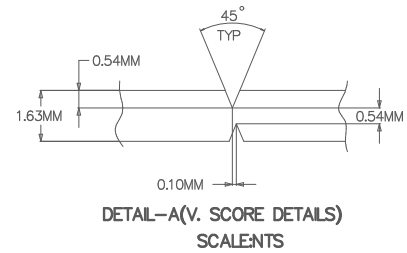


Symbol	Count	Hole Size	Plated	Hole Type	Hole Tolerance (+)	Hole Tolerance (-)	Hole Length
C	5	7.87mil (0.200mm)	PTH	Round			--
X	1546	8.00mil (0.203mm)	PTH	Round	3.00mil (0.076mm)	3.00mil (0.076mm)	--
D	4	10.00mil (0.254mm)	PTH	Round	3.00mil (0.076mm)	3.00mil (0.076mm)	--
A	39	12.00mil (0.305mm)	PTH	Round	3.00mil (0.076mm)	3.00mil (0.076mm)	--
Q	4	23.62mil (0.600mm)	PTH	Slot			51.18mil (1.300mm)
B	2	33.47mil (0.850mm)	NPTH	Round			--
X	4	33.47mil (0.850mm)	PTH	Round			--
Q	10	35.43mil (0.900mm)	PTH	Round			--
Q	30	39.37mil (1.000mm)	PTH	Round	7.87mil (0.200mm)	7.87mil (0.200mm)	--
X	4	39.37mil (1.000mm)	PTH	Rectangle			<Mixed>
Q	25	40.00mil (1.016mm)	PTH	Round			--
Q	8	40.16mil (1.020mm)	NPTH	Round			--
Q	8	40.16mil (1.020mm)	PTH	Round			--
V	6	47.24mil (1.200mm)	PTH	Round			--
*	1	62.99mil (1.600mm)	NPTH	Round	3.94mil (0.100mm)	0.00mil (0.000mm)	--
*	4	66.93mil (1.700mm)	NPTH	Round			--
Q	2	66.93mil (1.700mm)	PTH	Round			--
V	2	127.95mil (3.250mm)	NPTH	Round			--
X	11	160.00mil (4.064mm)	NPTH	Round	2.00mil (0.051mm)	2.00mil (0.051mm)	--
1715 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



## 2 IMPEDANCE SPECIFICATIONS

SL#	TYPE	LAYER	TRACEWIDTH(Mils)	SPACING(Mils)	IMPEDANCE(Ohms)	REF LAYER
01	MICROSTRIP	L1, L10	5.5	---	50	L02,L09
02	EDGE COUPLED MICROSTRIP	L1, L10	4	4.5	90	L02,L09
03	EDGE COUPLED MICROSTRIP	L1, L10	4	7	100	L02,L09
04	EDGE COUPLED MICROSTRIP	L1, L10	4	5.6	120	L04,L07
05	STRIPLINE	L3, L8	5.1	---	50	L02/L04,L07/L09
06	EDGE COUPLED STRIPLINE	L3	4	5	90	L02/L04
07	EDGE COUPLED STRIPLINE	L3, L8	4	8	100	L02/L04,L07/L09

THIS IS AN IMPEDANCE CONTROLLED BOARD.

NOTE :

EXTERNAL LAYER CU THICKNESSES ARE FINISHED THICKNESS AFTER PLATING.

## 2 LAYER STACKUP

Layer	Name	Material	Thickness	Constant		Board Layer Stack
1	Top Overlay					
2	Top Solder	Solder Resist	2.00mil	3.9		
3	Top Layer	Copper	1.85mil			
4	Dielectric 1	FR-4 High Tg	3.70mil	3.79		
5	GND1	Copper	1.26mil			
6	Dielectric 2	FR-4 High Tg	6.00mil	4.46		
7	SIG1	Copper	1.26mil			
8	Dielectric 3	FR-4 High Tg	7.10mil	3.79		
9	GND2	Copper	1.26mil			
10	Dielectric 4	FR-4 High Tg	4.00mil	4.4		
11	PLR1	Copper	1.26mil			
12	Dielectric 5	FR-4	5.29mil	3.79		
13	PLR2	Copper	1.26mil			
14	Dielectric 6	FR-4 High Tg	4.00mil	4.4		
15	GND3	Copper	1.26mil			
16	Dielectric 7	FR-4 High Tg	7.10mil	3.79		
17	SIG2	Copper	1.26mil			
18	Dielectric 8	FR-4 High Tg	6.00mil	4.46		
19	GND4	Copper	1.26mil			
20	Dielectric 9	FR-4 High Tg	3.70mil	3.79		
21	Bottom Layer	Copper	1.85mil			
22	Bottom Solder	Solder Resist	2.00mil	3.9		
23	Bottom Overlay					

NOTES : UNLESS OTHERWISE SPECIFIED.

- FABRICATE PER IPC-6012A CLASS 2.
- FOR IMPEDANCE DETAILS REFER STACKUP & IMPEDANCE TABLE.
- PRINTED WIRING BOARD SHALL COMPLY WITH REQUIREMENTS OF ANSI/J-STD-003.
- SURFACE FINISH: IMMERSION GOLD
- SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPL COLOR RED.
- SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING WHITE NON-CONDUCTIVE EPOXY INK.
- THIS PRINTED WIRING BOARD IS DESIGNED WITH A MINIMUM CONDUCTOR WIDTH AND SPACING OF 4 MIL & 3.5 MILS.
- ALL VIAS ARE TENTED ON BOTH SIDES UNLESS SOLDERMASK OPENED IN GERBER.
- ALL VIAS SHOULD BE FILLED WITH NON CONDUCTIVE EPOXY AND SURFACE SHOULD BE FLAT
- VENDOR SHOULD FOLLOW ROHS COMPLIANT PROCESS AND Pb FREE FOR MANUFACTURING
- MANUFACTURER'S IDENTIFICATION, DATECODE LETTER SHALL BE SILKSCREENED ON SOLDER SIDE OF THE BOARD.
- TRACE WIDTH SHOULD BE ACCURATELY ETCHED, MAX TOLERANCE +/- 1 MIL
- BOARD DIMENSIONS ARE IN MM.
- BOW AND TWIST SHALL NOT EXCEED 0.7% OF LONGEST SIDE
- TEAR DROPS SHALL BE ADDED ON INTERNAL AND EXTERNAL LAYER FOR ALL THE VIAS AND THROUGH HOLE PADS.
- PCB Material must meet or exceed UL94V-0 requirements.  
PCB must bear the UL94V-0 registered material D number.
- LAYER TO LAYER REGISTRATION SHALL BE WITHIN +/-2 MIL
- ON BOTTOM LAYER SOLDER MASK SHOULD BE OPENED IN THE INDICATED AREA.

DESIGN INFORMATION		
MIN. TRACK WIDTH:	4 MIL	
MIN. CLEARANCE:	3.5 MIL	
MIN. VIA PAD SIZE:	18 MIL	
MINIMUM ANNUAL RING	0.127mm (5MIL) 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:		
<input type="checkbox"/> FR-408 <input checked="" type="checkbox"/> FR-4 High Tg <input type="checkbox"/> OTHER		
THICKNESS:	<input checked="" type="checkbox"/> 64 MIL (1.63mm) +/-10% <input type="checkbox"/> OTHER	
TOLERANCE:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2	
	<input type="checkbox"/> OTHER +/-	
BOW & TWIST:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2	
	<input type="checkbox"/> OTHER +/-	
DRILLING:		
REFERENCE:	<input checked="" type="checkbox"/> AS SHOWN <input checked="" type="checkbox"/> NC_DRILL FILES	
PTH COPPER THICKNESS:	<input checked="" type="checkbox"/> 20-30 um <input type="checkbox"/> OTHER	
BOARD FINISH:		
SILKSCREEN:	<input checked="" type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM	
SILKSCREEN COLOR:	<input checked="" type="checkbox"/> WHITE <input type="checkbox"/> OTHER	
SOLDER RESIST COLOR:	<input type="checkbox"/> GREEN <input checked="" type="checkbox"/> OTHER RED	
	<input checked="" type="checkbox"/> MATTE <input type="checkbox"/> SEMI-GLOSS	
SURFACE FINISH: <input checked="" type="checkbox"/> IMMERSION GOLD (ENG) <input type="checkbox"/> ENEPG		
	<input type="checkbox"/> IMM. TIN/SILVER OR EQUIV <input type="checkbox"/> OTHER	
ARRAY/PANEL:	<input type="checkbox"/> CUT AND TRIM PER M1 BOARD OUTLINE	
	<input type="checkbox"/> NC. ROUTE <input checked="" type="checkbox"/> V. SCORE	
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF:		
<input checked="" type="checkbox"/> ANSI IPC-A-600F CLASS -> <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		
<input checked="" type="checkbox"/> RoHS <input type="checkbox"/> OTHER PER ORDER		
ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.		
PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL D NUMBER		
ADDITIONAL REQUIREMENTS:		
MICROSECTION: <input type="checkbox"/> YES		
BARE BOARD ELEC. TEST: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> PER ORDER		
<input checked="" type="checkbox"/> 8 & 12 MIL VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE		
<input type="checkbox"/> XX MIL VIAS REQUIRE CONDUCTIVE FILL AND PLANARIZE		
<input checked="" type="checkbox"/> BOARD IMPEDANCE SHALL BE FOLLOWED AS PER THE IMPEDANCE SPECIFICATION TABLE.		
<input type="checkbox"/>		



PROJECT TITLE:	
TMS273GPEUM	
DESIGNED FOR:	
Public Release	
FILE NAME:	
PROC103C_BRD_PcbDoc	
ENGINEER:	LAYOUT BY:
Adrian Ozer/Hike Prigden	Mistral
SCALE: 0.62	ALTUM DESIGNER VERSION:
	19.0.14.431

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: PROC103	REV: C	SUN REV: Not In VersionControl
LAYER NAME =	TID #: N/A		
PLOT NAME = Fab Notes	GENERATED : 16-06-2022 19:51:08	TEXAS INSTRUMENTS	