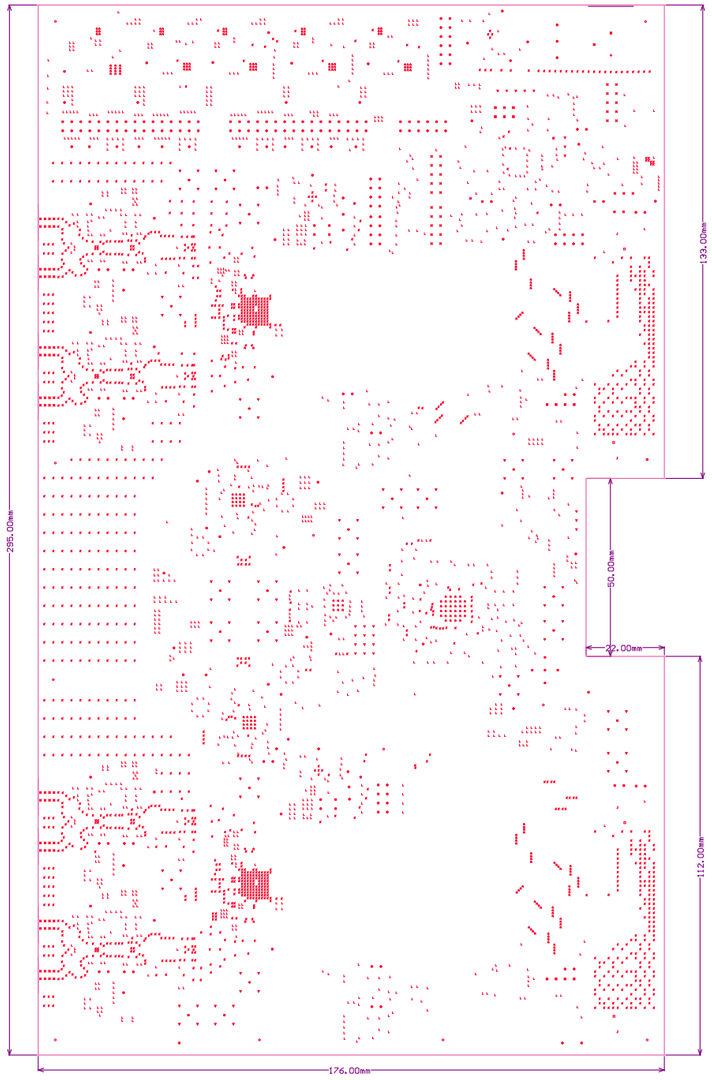

Symbol	Count	Hole Size	Hole Length	Routed Path Length	Plated	Hole Type
	1	39.76mil (1.010mm)	140.16mil (3.560mm)	100.39mil (2.550mm)	PTH	Slot
	1	63.00mil (1.600mm)	-	-	PTH	Round
	1	29.92mil (0.760mm)	120.08mil (3.050mm)	90.16mil (2.290mm)	PTH	Slot
	1	64.96mil (1.650mm)	-	-	PTH	Round
	4	50.00mil (1.270mm)	-	-	NPTH	Round
	1	106.90mil (2.692mm)	-	-	PTH	Round
	2	62.99mil (1.600mm)	-	-	PTH	Round
	6	35.43mil (0.900mm)	-	-	PTH	Round
	8	39.37mil (1.000mm)	-	-	PTH	Round
	12	157.00mil (3.988mm)	-	-	NPTH	Round
	23	33.47mil (0.850mm)	-	-	PTH	Round
	25	62.00mil (1.575mm)	-	-	PTH	Round
	33	45.28mil (1.150mm)	-	-	PTH	Round
	64	16.00mil (0.406mm)	-	-	PTH	Round
	100	67.00mil (1.702mm)	-	-	PTH	Round
	259	40.00mil (1.016mm)	-	-	PTH	Round
A	279	10.00mil (0.254mm)	-	-	PTH	Round
L	1590	12.00mil (0.305mm)	-	-	PTH	Round
K	1686	8.00mil (0.203mm)	-	-	PTH	Round

NOTE:
1. 10 mil Vias are not allowed on component surface (except IO mil via).
2. All on pad vias must be filled and capped.
3. Cu fill in the copper pour layers must be 20H 20 mil edge.

STACKUP:-

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay	4105 + Total	0.40mil		
2	Top Solder	Solder Resist	0.40mil	3.5	
3	L1_Top Layer	Copper	1.40mil		
4	Dielectric1	R-5670k	5.60mil	4.2	
5	L2_GND	Copper	0.60mil		
6	Dielectric 2	R-5775K	5.00mil	4.2	
7	L3_GND	Copper	0.60mil		
8	Dielectric 3	R-5670k	7.50mil	4.2	
9	L4_Signal Layer 1	Copper	0.60mil		
10	Dielectric 4	R-5775K	4.00mil	4.2	
11	L5_GND	Copper	0.60mil		
12	Dielectric 5	R-5670k	4.30mil	4.2	
13	L6_PWR	Copper	0.60mil		
14	Dielectric 6	R-5775K	3.00mil	4.2	
15	L7_GND/PWR	Copper	0.60mil		
16	Dielectric 7	R-5670k	4.30mil	4.2	
17	L8_PWR	Copper	0.60mil		
18	Dielectric 8	R-5775K	4.00mil	4.2	
19	L9_GND/PWR	Copper	0.60mil		
20	Dielectric 9	R-5670k	7.50mil	4.2	
21	L10_Signal Layer 2	Copper	0.60mil		
22	Dielectric 10	R-5775K	5.00mil	4.2	
23	L11_GND	Copper	0.60mil		
24	Dielectric 11	R-5670k	5.60mil	4.2	
25	L12_Bottom Layer	Copper	1.40mil		
26	Bottom Solder	Solder Resist	0.40mil	3.5	
27	Bottom Overlay				

IMPEDANCE TABLE:-

Layer	50 OHM SE	90 OHM DIFF	100 OHM DIFF TIGHTLY COUPLED	100 OHM DIFF LOOSELY COUPLED	REFERENCE
	TRACE WIDTH (MILS) +/-10%	WIDTH-SPACING (MILS) +/-10%	WIDTH-SPACING (MILS) +/-10%	WIDTH-SPACING (MILS) +/-10%	Layer
L1_Top Layer	11mils	8.2mil trace/ 6mil space	6mil trace/ 5mil space	10mil trace/ 18mil space	L2_GND Layer
L4_SIGNAL Layer1	5.5mils	NIL	4.3mil trace/ 7.1mil space	NIL	L5_GND Layer
L10_SIGNAL Layer2	6.5mils	NIL	5.5mil trace/ 6.5mil space	6.2mil trace/ 20.1mil space	L11_GND Layer
L12_BOTTOM Layer	11mils	NIL	6mil trace/ 9mil space	10mil trace/ 18mil space	L11_GND Layer

Slot permitions : 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

DESIGN INFORMATION

BOARD SIZE: (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
176MM X 296MM
Number of Layers : 12
MIN. TRACK WIDTH: 3.5 MIL
MIN. CLEARANCE: 5 MIL
MIN. VIA PAD SIZE: 16 MIL
MIN. VIA HOLE SIZE: 8 MIL EXTERNAL
IPC CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-408 [ ] FR-4 High Tg [X] OTHER R-5670K AND R-5775K
THICKNESS: [X] 63 MIL (1.6mm) +/-10% [ ] OTHER
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
COPPER THICKNESS (FINISHED):
OUTER: [X] 1.4MIL (1oz) [ ] 2MIL (1.4oz) [ ] 2.8MIL (2oz)
INNER SIGNAL: [X] 0.6MIL (1/2oz) [ ] 2.8MIL (2oz) [ ] N/A
DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER
BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER
SOLDER RESIST COLOR:
[X] GREEN [ ] BLUE [ ] OTHER
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TN/SILVER OR EQUIV [ ] OTHER
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1
[ ] N.C. ROUTE [X] 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] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS: VIA TENTING: YES [X] NO [ ]
MICROSECTION: [ ] YES IMPEDANCE CONTROL: YES [X] NO [ ]
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

TIDA-01028

DESIGNED FOR: Public Release

FILE NAME: TIDA-01022-E3.PcbDoc

ENGINEER: Anbu Mani

LAYOUT BY: Avinash N

ALTIUM DESIGNER VERSION: 17.1.9.592

SCALE: 0.60

1000 (mil)

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01022	REV: E3	SUN REV:
LAYER NAME = DRILL DRAWING	TID #:01022		
PLOT NAME = Fabrication Drawing	GENERATED : 3/5/2019 1:48:20 PM	TEXAS INSTRUMENTS	

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