Layer	Name	Material	Thickness	Constant	Board Layer Stack	Board Layer Stack
1	Top Overlay					
2	Top Solder	Solder Resist	0.40mil	3.5		
3	Layer 1 - Top Layer	Copper	1.40mil			
4	Dielectric 1	370HR	9.00mil	4.2		
5	Layer 2 - GND	Copper	1.42mil			
6	Dielectric 2	370HR	9.00mil	4.2		
7	Layer 3 - PWR	Copper	1.42mil			
8	Dielectric 3	370HR	9.00mil	4.2		
9	Layer 4 - Bottom Layer	Copper	1.40mil			
10	Bottom Solder	Solder Resist	0.40mil	3.5		
11	Bottom Overlay					

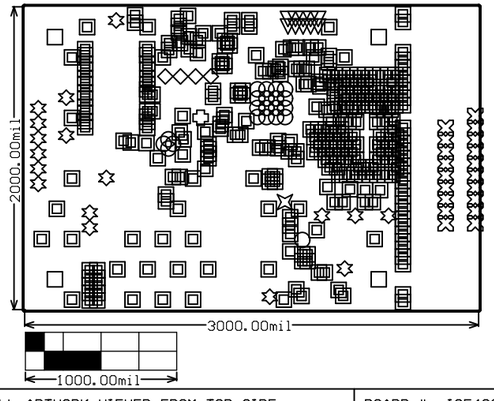
Impedance Control:

- Top layer contains 50 ohm impedance (+/- 10%) single ended using 15 mil traces (from E1 to U7)

DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 0.2 mm
MIN. VIA PAD SIZE: 20 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-408 [X] FR-4 High Tg [ ] OTHER
THICKNESS: [ ] 62 MIL (1.6mm) +/-10% [X] OTHER 33 MIL
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
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. TIN/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:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK



Symbol	Quantity	Finished Hole Size	Plated	Hole Type
○	21	7.87mil (0.200mm)	PTH	Round
■	323	10.00mil (0.254mm)	PTH	Round
⊠	19	14.96mil (0.380mm)	PTH	Round
▽	10	27.56mil (0.700mm)	PTH	Round
◇	4	39.37mil (1.000mm)	PTH	Round
✡	17	40.00mil (1.016mm)	PTH	Round
⊠	1	46.50mil (1.181mm)	PTH	Round
✪	1	59.06mil (1.500mm)	PTH	Round
□	4	125.98mil (3.200mm)	PTH	Round
	400 Total			

TEXAS INSTRUMENTS

PROJECT TITLE:
Energy Harvesting Ambient Light and Environment Sensor Node for Sub-1GHz Networks

DESIGNED FOR:
Public Release

FILE NAME:
ISE4039_TID.PcbDoc

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: ISE4039	REV: E3	SVN REV: Not In VersionControl
LAYER NAME = [illegible]ions	TID #: TIDA-00488		
PLOT NAME = Fabrication Drawing	GENERATED : 10/14/2015 11:12:50 AM		TEXAS INSTRUMENTS

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ENGINEER: Kelly Fernandez	LAYOUT BY: JMM Evan Cornell (krypton solutions)
SCALE: 1.00	ALTIUM DESIGNER VERSION: 14.3.19.51423