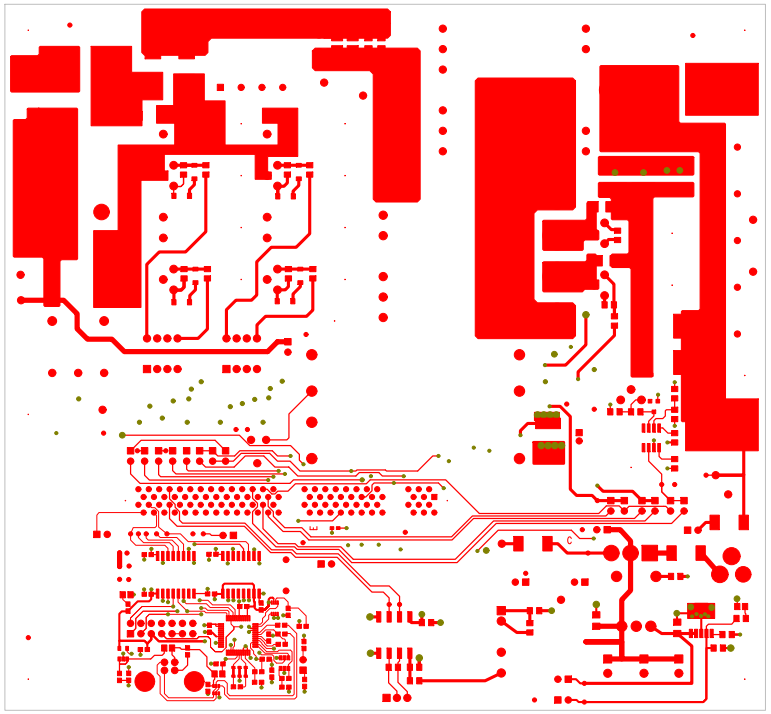
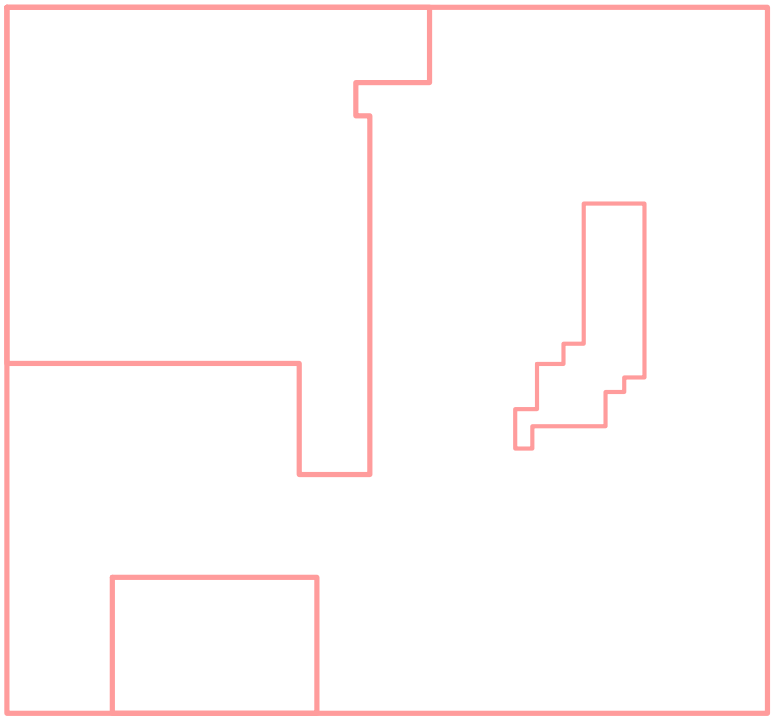
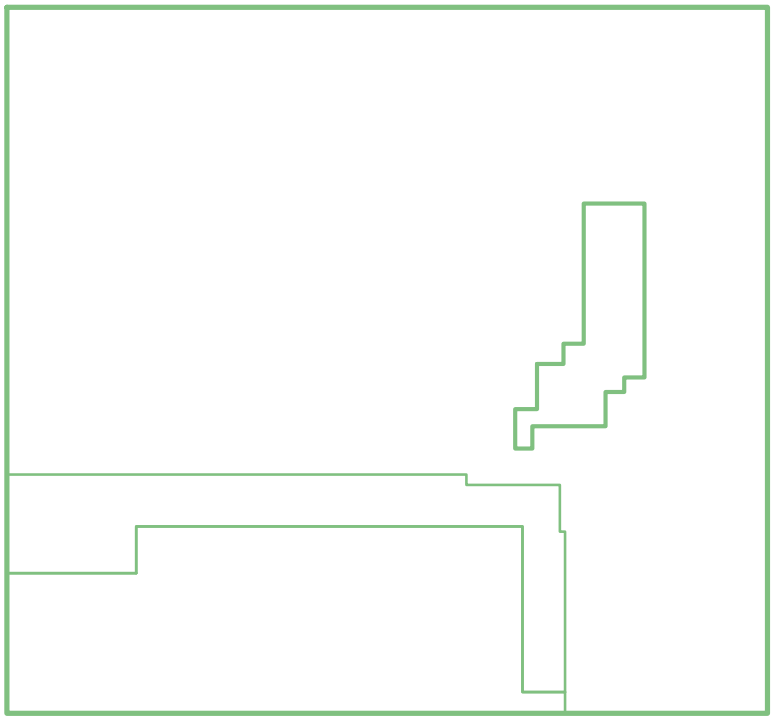
Note: TIDM-02000 is developed based on TIDM-BIDIR-400-12 reference design hardware. See more details in the TIDM-02000 reference design guide (Hardware section)

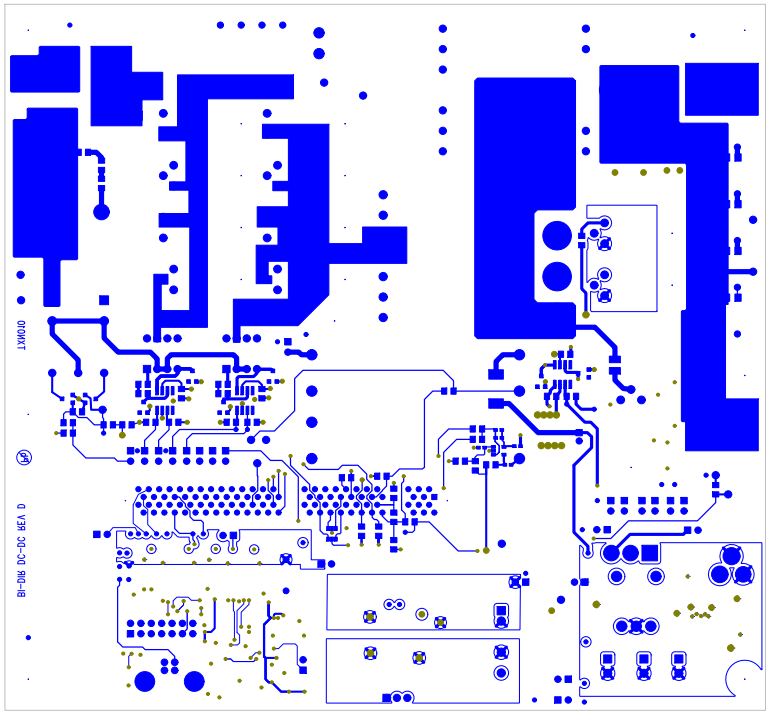


1 Primary Side



2 GND Plane





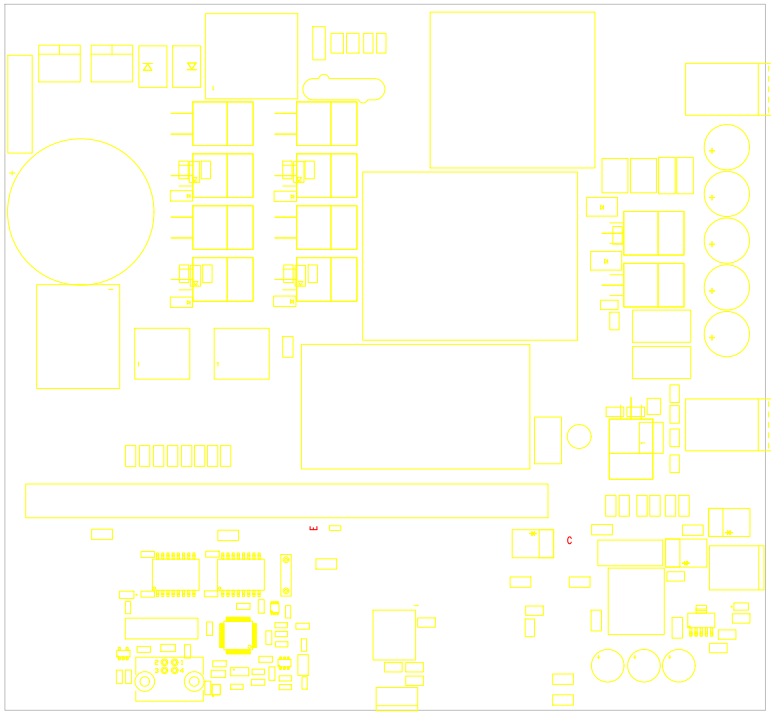
4

Secondary Side

Notes:

1) Refer to BOM for stuffing options.
2) Observe polarity on diodes and capacitors.
3) The Following are to be mounted on Heat Sink and Leads Bent towards Secondary Side:
   Q1-7, D25-D28

Primary Side



REVISIONS				
REV.	REV.	DESCRIPTION	DATE	APPROVED

APPLICATION	
USED ON	NEXT ASSY.

MATERIAL: SEE NOTE
FINISH: SEE NOTE

DO NOT SCALE DRAWING

CONTRACT NO.

UNLESS OTHERWISE SPECIFIED

1. TOLERANCES:
   LINEAR = ± 0.26 (.010)
   ANGULAR = ± 0.50°
2. ALL DIMENSIONS ARE IN MM (INCHES).
3. INTERPRET DRAWING IN ACCORDANCE WITH DOD-STD-100.

DWN:	www.WSTSCORP.com	7/14
CHK:		
P.E.:		
DES.ENG.:		
P.C.:		
Q.C.:		
C.M.:		
REL:		
MFG:		
ENG.MGR:		
OTHER:		
OTHER:		
OTHER:		

TEXAS INSTRUMENTS

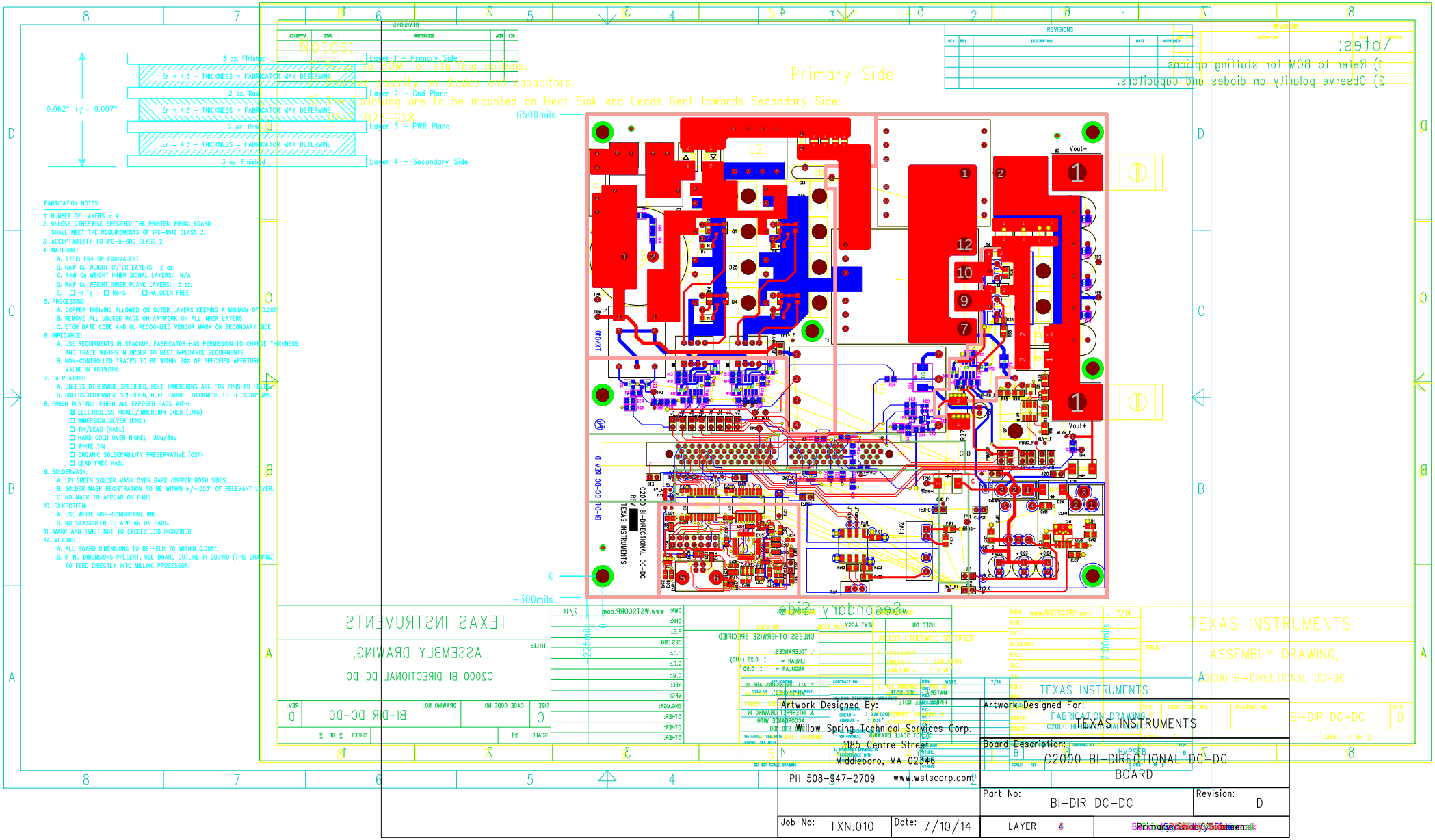
TITLE:
ASSEMBLY DRAWING,
C2000 BI-DIRECTIONAL DC-DC

SIZE	CAGE CODE NO.	DRAWING NO.	REV:
C		BI-DIR DC-DC	D

SCALE: 1:1 SHEET 1 OF 2

1 Primary Side

Notes:
1) Refer to BOM for stuffing options.
2) Observe polarity on diodes and capacitors.
REVISIONS
REV.
DESCRIPTION
DATE
APPROVED
Secondary Side
TEXAS INSTRUMENTS
ASSEMBLY DRAWING,
C2000 BI-DIRECTIONAL DC-DC
TITLE:
BI-DIR DC-DC
SIZE
C
CAGE CODE NO.
DRAWING NO.
REV:
D
SCALE: 1:1
SHEET 2 OF 2
DWN: www.WSTSCORP.com 7/14
CHK:
P.E.:
DES.ENG.:
P.C.:
Q.C.:
C.M.:
PEL:
MFG:
ENG.MGR:
OTHER:
OTHER:
OTHER:
UNLESS OTHERWISE SPECIFIED
1. TOLERANCES:
LINEAR = ± 0.26 (.010)
ANGULAR = ± 0.50 °
2. ALL DIMENSIONS ARE IN MM (INCHES).
3. INTERPRET DRAWING IN ACCORDANCE WITH D00-370-100.
DO NOT SCALE DRAWING
MATERIAL: SEE NOTE
FINISH: SEE NOTE
APPROVALS
DATE
NEXT ASSY.
USED ON
BI-DIR DC-DC 3KW 0
4


Notes:
1) Refer to BOM for stuffing options.
2) Observe polarity on diodes and capacitors.
Primary Side
6500mils
0
-300mils
7100mils
0.062" +/- 0.007"
3 oz. Finished
Er = 4.3 - THICKNESS = FABRICATOR MAY DETERMINE
2 oz. Raw
Layer 1 - Primary Side
Layer 2 - Gnd Plane
Layer 3 - PWR Plane
Layer 4 - Secondary Side
FABRICATION NOTES:
1. NUMBER OF LAYERS = 4
2. UNLESS OTHERWISE SPECIFIED THE PRINTED WIRING BOARD SHALL MEET THE REQUIREMENTS OF IPC-6012 CLASS 2.
3. ACCEPTABILITY TO IPC-A-600 CLASS 2.
4. MATERIAL:
A. TYPE: FR4 OR EQUIVALENT
B. RAW Cu WEIGHT OUTER LAYERS: 2 oz.
C. RAW Cu WEIGHT INNER SIGNAL LAYERS: N/A
D. RAW Cu WEIGHT INNER PLANE LAYERS: 2 oz.
E. ☐ HI Tg ☐ RoHS ☐ HALOGEN FREE
5. PROCESSING:
A. COPPER THEIVING ALLOWED ON OUTER LAYERS KEEPING A MINIMUM OF 0.200
B. REMOVE ALL UNUSED PADS ON ARTWORK ON ALL INNER LAYERS.
C. ETCH DATE CODE AND UL RECOGNIZED VENDOR MARK ON SECONDARY SIDE.
6. IMPEDANCE:
A. USE REQUIRMENTS IN STACKUP. FABRICATOR HAS PERMISSION TO CHANGE THICKNESS AND TRACE WIDTHS IN ORDER TO MEET IMPEDANCE REQUIRMENTS.
B. NON-CONTROLLED TRACES TO BE WITHIN 20% OF SPECIFIED APERTURE VALUE IN ARTWORK.
7. Cu PLATING:
A. UNLESS OTHERWISE SPECIFIED, HOLE DIMENSIONS ARE FOR FINISHED HOLE
B. UNLESS OTHERWISE SPECIFIED, HOLE BARREL THICKNESS TO BE 0.001" MIN.
8. FINISH PLATING: FINISH ALL EXPOSED PADS WITH:
☒ ELECTROLESS NICKEL/IMMERSION GOLD (ENIG)
☐ IMMERSION SILVER (ENIG)
☐ TIN/LEAD (HASL)
☐ HARD GOLD OVER NICKEL 30u/80u
☐ WHITE TIN
☐ ORGANIC SOLDERABILITY PRESERVATIVE (OSP)
☐ LEAD FREE HASL
9. SOLDERMASK:
A. LPI GREEN SOLDER MASK OVER BARE COPPER BOTH SIDES.
B. SOLDER MASK REGISTRATION TO BE WITHIN +/-.003" OF RELEVANT LAYER.
C. NO MASK TO APPEAR ON PADS
10. SILKSCREEN:
A. USE WHITE NON-CONDUCTIVE INK.
B. NO SILKSCREEN TO APPEAR ON PADS.
11. WARP AND TWIST NOT TO EXCEED .010 INCH/INCH.
12. MILLING:
A. ALL BOARD DIMENSIONS TO BE HELD TO WITHIN 0.005".
B. IF NO DIMENSIONS PRESENT, USE BOARD OUTLINE IN DD.PHO (THIS DRAWING) TO FEED DIRECTLY INTO MILLING PROCESSOR.
REVISIONS
REV. DESCRIPTION DATE APPROVED
TEXAS INSTRUMENTS
ASSEMBLY DRAWING,
C2000 BI-DIRECTIONAL DC-DC
Artwork Designed By:
Willow Spring Technical Services Corp.
1185 Centre Street
Middleboro, MA 02346
PH 508-947-2709 www.wstscorp.com
Artwork Designed For:
TEXAS INSTRUMENTS
Board Description:
C2000 BI-DIRECTIONAL DC-DC BOARD
Part No: BI-DIR DC-DC
Revision: D
Job No: TXN.010
Date: 7/10/14
LAYER 4
Primary Side

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