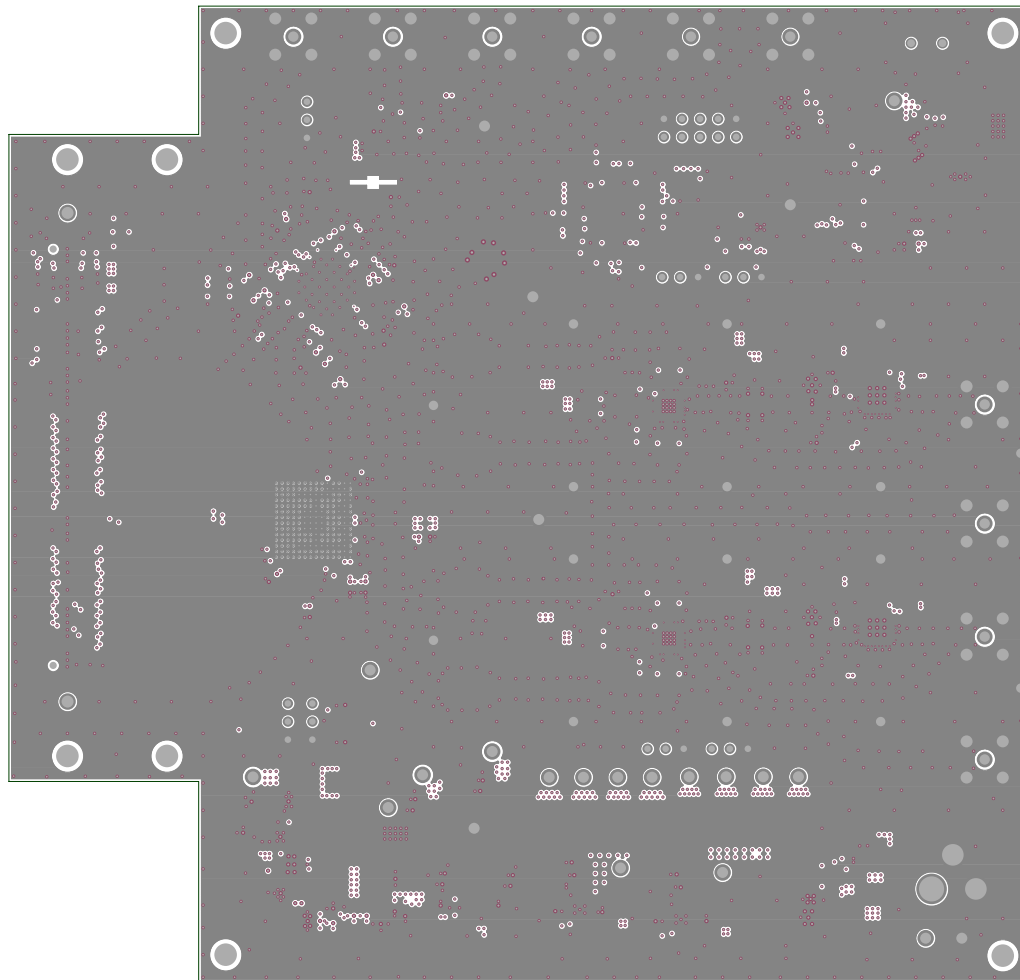
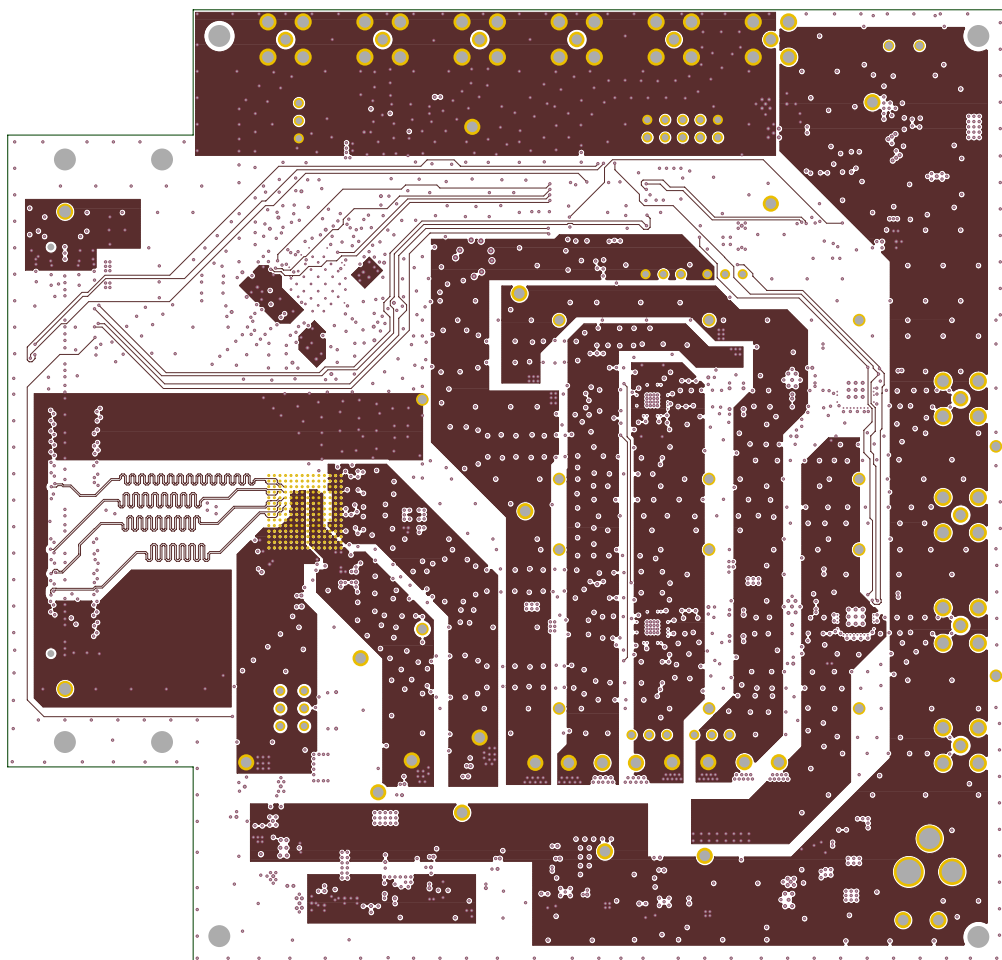


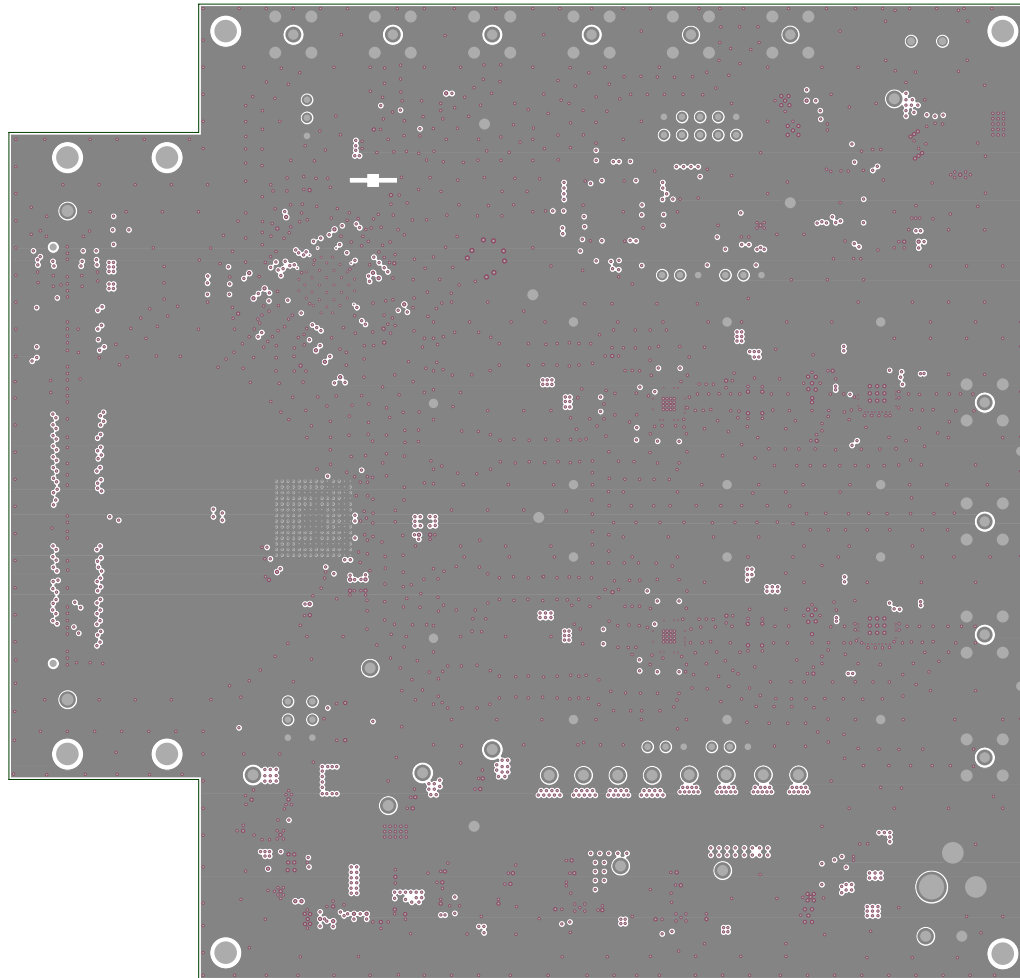
TEXAS INSTRUMENTS  
TSW30H84 EVM REV A  
SATEK SCREENS.TDOP



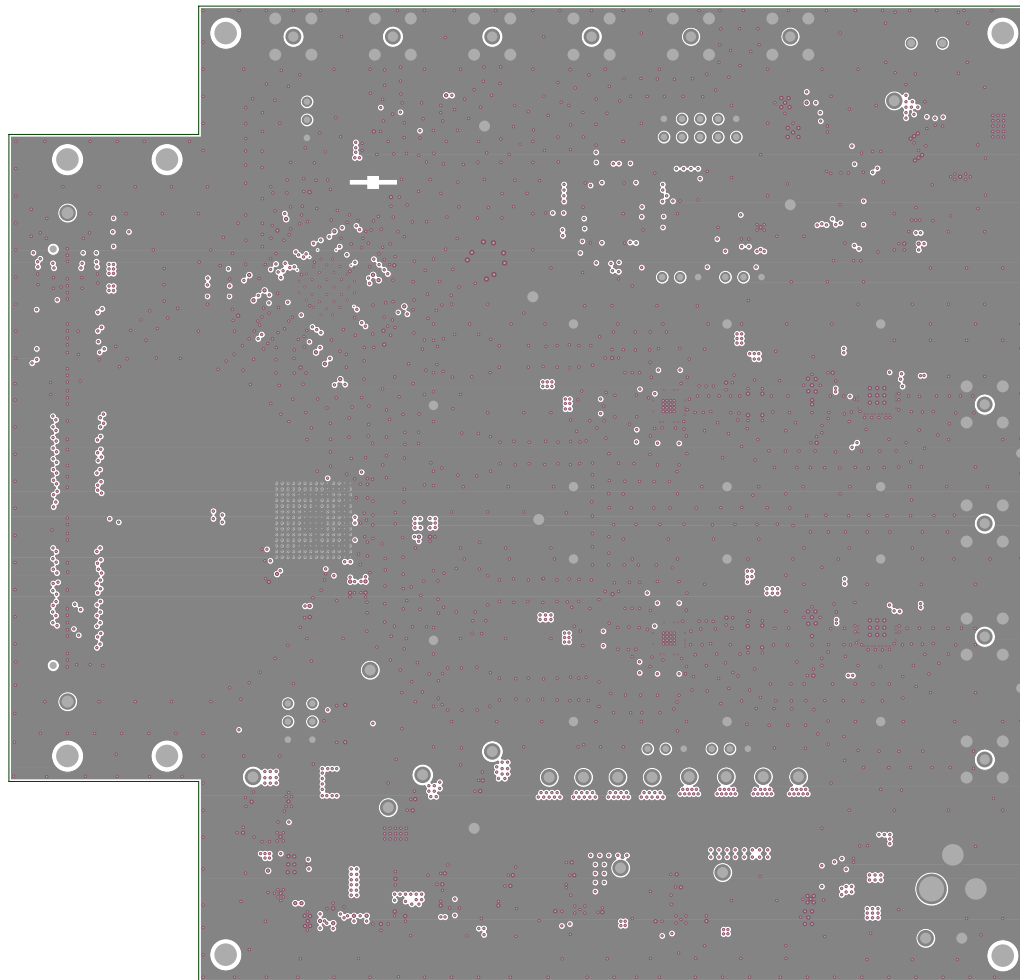
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LAYER 2 - GND



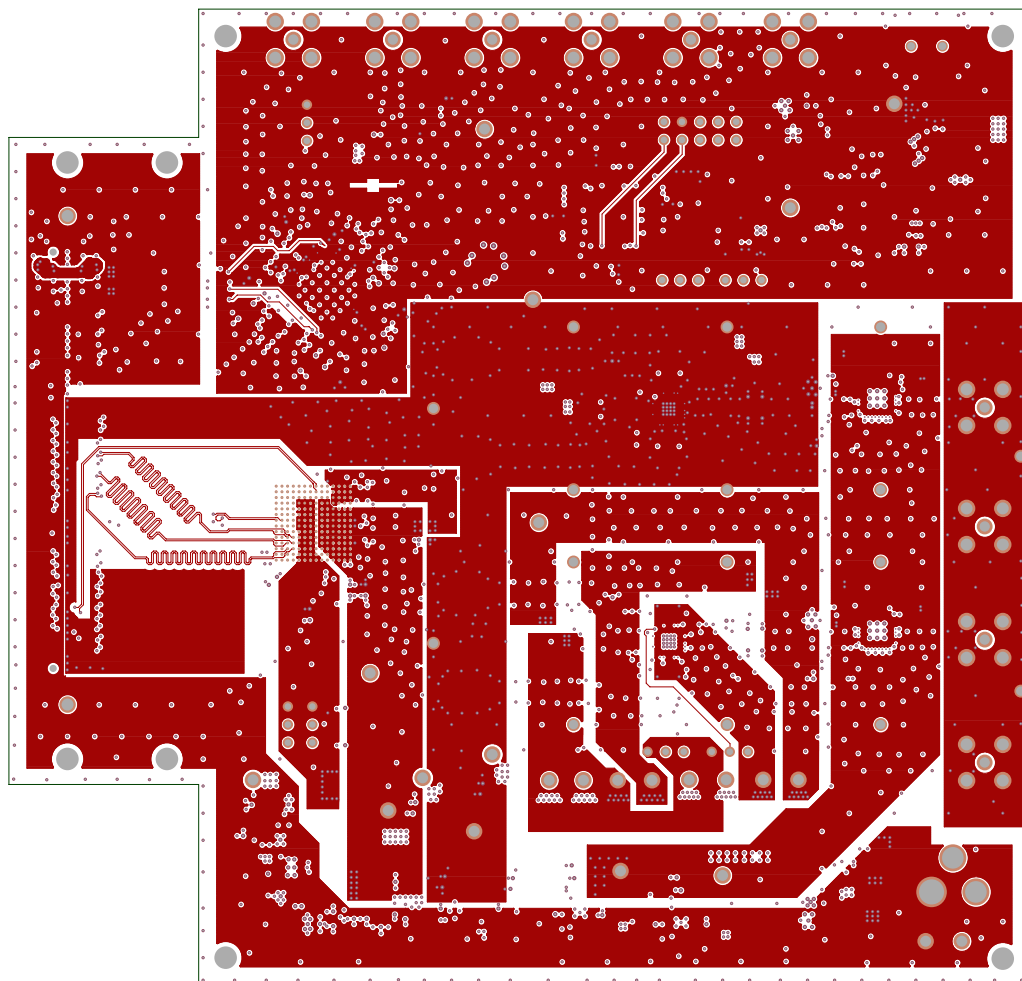
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LAYER 3 - POWER



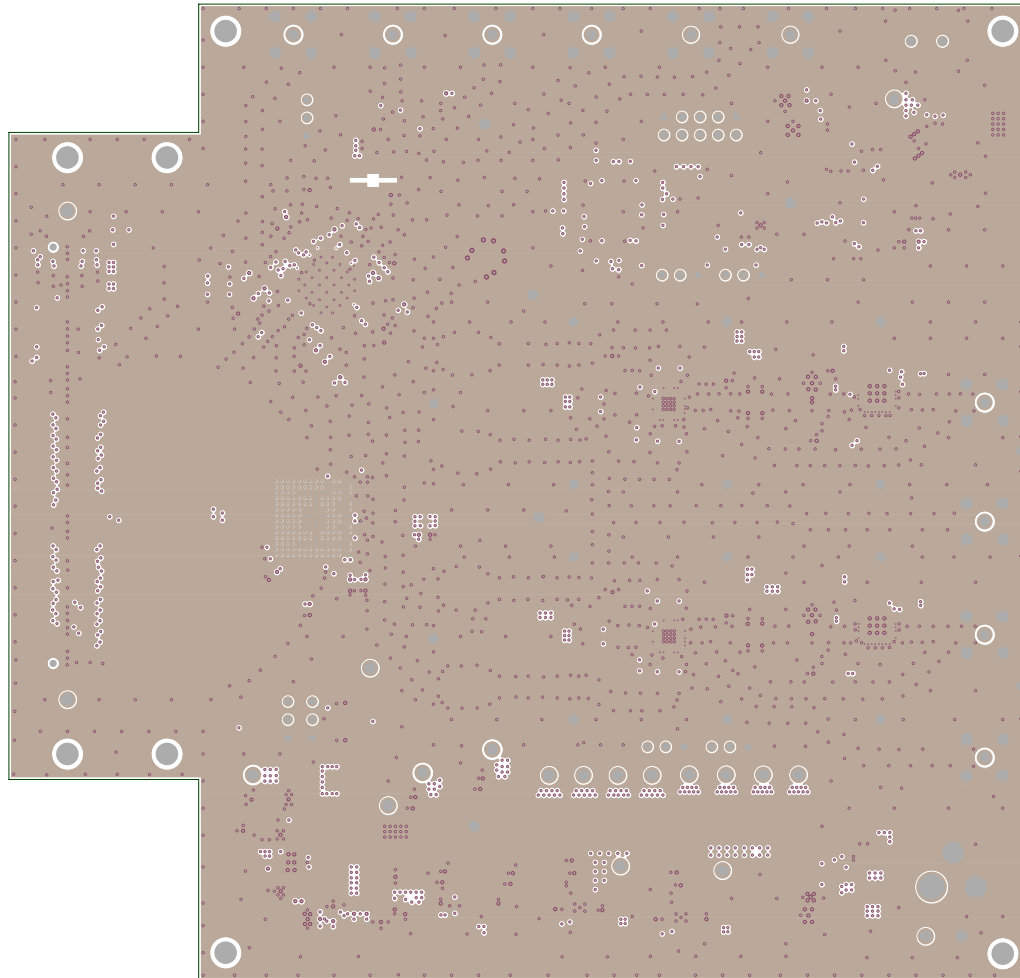
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TSW30H84 EVM REV A  
LAYER 4 - GND



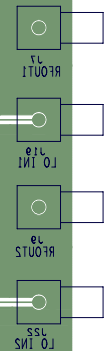
TEXAS INSTRUMENTS  
TSW30H84 EVM REV A  
LAYER 5 - GND



TEXAS INSTRUMENTS  
TSW30H84 EVM REV A  
LAYER 6 - POWER



TEXAS INSTRUMENTS  
TSW30H84 EVM REV A  
LAYER 7 - GND



SILKSCREEN BOTTOM



8 7 6 5 4 3 2 1

UNLESS OTHERWISE SPECIFIED, ALL NOTES ARE APPLICABLE.  
NOTES PRECEDED BY AN UNMARKED "\*" ARE NOT APPLICABLE.

1. APPLICATION DESIGN MANUFACTURING AND INSPECTION DOCUMENTS.  
IPC-2221A & IPC-2222 / DESIGN STANDARD FOR RIGID PRINTED CIRCUIT BOARDS  
AND RIGID PRINTED BOARD ASSEMBLIES  
IPC-6012B / QUALIFICATION AND PERFORMANCE SPECIFICATION FOR RIGID  
PRINTED BOARD  
IPC-A-600G / ACCEPTABILITY OF PRINTED BOARDS.

2. HOLE SIZE APPLY AFTER PLATING. TOLERANCE TO BE +/- .003.

3. REGISTRATION TOLERANCE: ARTWORK +/- .002  
ALL HOLE CENTERS +/- .005 FROM DIMENSION DATUM.

4. MINIMUM COPPER WALL THICKNESS SHALL BE .001 INCH.  
FOR ALL PLATED THROUGH HOLES. BREAKOUT NOT ALLOWED.

5. PROCESS AND MATERIAL MUST CONFORM TO UL 796. MATERIAL MUST MEET  
OR EXCEED UL FLAMMABILITY RATING 94V-0.  
MATERIAL: ☐ SINGLE SIDED, ☐ DOUBLE SIDED, ☒ MULTI-LAYER (SEE DETAIL "A")  
SEE LAYER STACKUP FOR ALL PRE-PREG & CORE THICKNESSES, COPPER OZ  
AND MATERIAL. FINISHED BOARD THICKNESS: .062 +/- .010

6. MANUFACTURE'S UL MARKING, FLAMMABILITY RATING, LOGO AND DATE CODE TO BE  
PLACED IN SILKSCREEN ON BOTTOM SIDE OF THE BOARD.

7. SOLDERMASK BOTH SIDES USING TAIYO (OR EQUIVALENT).  
COLOR: RED (0.001 TO 0.002" THICK OVER METAL).

8. SILKSCREEN ☐ TOP SIDE ☒ BOTH SIDES, USING ☐ YELLOW ☒ WHITE NPI LEADFREE.  
REGISTRATION TOLERANCE TO BE +/- .005. INK IS NOT ALLOWED ON EXPOSED PLATED AREA.

9. P.C. BOARD TO BE FREE OF DIRT, OIL, FINGER PRINTS, ETC.

10. BOARD WARPAGE: WARP AND TWIST SHALL NOT EXCEED .007 INCH PER INCH.  
MEASURED AT ANY LOCATION OR DIRECTION ON THE BOARD.

11. BOARD MUST BE 100% ELECTRICALLY TESTED TO ENSURE NO SHORTS OR OPEN CIRCUITS AT 20V.

12. ALL INNER LAYER UNCONNECTED PADS SHALL BE REMOVED.

13. ALL OUTER LAYERS USING A 12.0 mil TRACE WIDTH SHALL BE 50ohms SINGLE ENDED, +/- 10% TOLERANCE.  
ALL OUTER LAYERS USING A 6.0 mil TRACE WIDTH SHALL BE 100ohms SINGLE ENDED, +/- 10% TOLERANCE.  
ALL OUTER LAYERS USING A 6.0 mil TRACE WIDTH AND 5.0 mil SPACING SHALL BE 100 ohms DIFFERENTIAL, +/- 10% TOLERANCE.  
ALL INNER LAYERS USING A 5 mil TRACE WIDTH AND 7 mil SPACING SHALL BE 100 ohms DIFFERENTIAL, +/- 10% TOLERANCE.

14. MINIMUM COPPER CONDUCTOR WIDTH IS: 5MIL.  
MINIMUM COPPER SPACING IS: 4.5MIL.

15. SMOBC/IMMERSION GOLD: 3-8 uIN OVER 100-200 uIN NICKEL PLATING.

16. GROUND ETCH ON ALL LAYERS TO BOARD EDGE IS INTENTIONAL. DO NOT PULL BACK.

17. NO CHANGES TO ANY ARTWORK ARE PERMITTED WITHOUT WRITTEN AUTHORIZATION.

18. HOLES SIZE APPLIES AFTER PLATING. TOLERANCE TO BE .003/- .010.

19. FILL VIAS IN PAD (INCLUDING VIAS UNDER BGA, EXCEPT VIAS IN THERMAL PAD UNDER IC'S) WITH NON CONDUCTIVE MATERIAL.

20. FINISHED BOARDS MUST BE RHHS COMPLIANT AND SURVIVE A LEAD FREE ASSEMBLY, MAXIMUM REFLOW TEMPERATURE OF 260 DEGREE C (6 PASSES).

DETAIL "A"

LAYER 1 TOP Copper Foil 0.5oz / Plate to 1.0oz min Layer 1

LAYER 2 FR-4 Pre-preg 0.0073" (material)

LAYER 3 FR-4 Core 10.00" 1.0oz / 1.0oz Layer 2 & 3

LAYER 4 FR-4 Pre-preg 0.0055" (material)

LAYER 5 FR-4 Core 10.00" 1.0oz / 1.0oz Layer 4 & 5

LAYER 6 FR-4 Pre-preg 0.0055" (material)

LAYER 7 FR-4 Core 10.00" 1.0oz / 1.0oz Layer 6 & 7

LAYER 8 FR-4 0.0073" g X .XXX" (material)

LAYER 8 BOTTOM Copper Foil 0.5oz / Plate to 1.0oz min Layer 8

DRILL CHART: TOP to BOTTOM  
ALL UNITS ARE IN MILS

FIGURE	SIZE	PLATED	QTY
*	6.0	PLATED	64
*	8.0	PLATED	32
*	8.0	PLATED	196
*	10.0	PLATED	2242
*	12.0	PLATED	138
*	13.0	PLATED	18
*	15.0	PLATED	8
*	38.0	PLATED	31
*	53.0	PLATED	16
*	59.0	PLATED	10
*	62.0	PLATED	23
*	67.0	PLATED	40
*	68.0	PLATED	2
⊙	120.0	PLATED	2
⊙	140.0	PLATED	1
*	40.0	NON-PLATED	2
*	45.0	NON-PLATED	2
Y	125.0	NON-PLATED	8

18

710 1.000 4.600 2.704 3.580 2.353 1.110 1.000 5.400

8 7 6 5 4 3 2 1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
TOLERANCES ARE:  
FRACTIONS DECIMALS ANGLES  
+/- .XX +/- .01 +/-  
XXX +/- .005 +/-

MATERIAL SEE NOTE 5

FINISH SEE NOTES 7, 8, 9

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS DATE  
DRAWN L. NGUYEN 09-01-11  
ENGR K. HSIA

TEXAS INSTRUMENTS INC.

FABRICATION DRAWING  
TSW30H84 EVM

SIZE B CODE IDENT NO DRAWING NO. REV. A

SCALE NONE SHEET 1 OF 1