

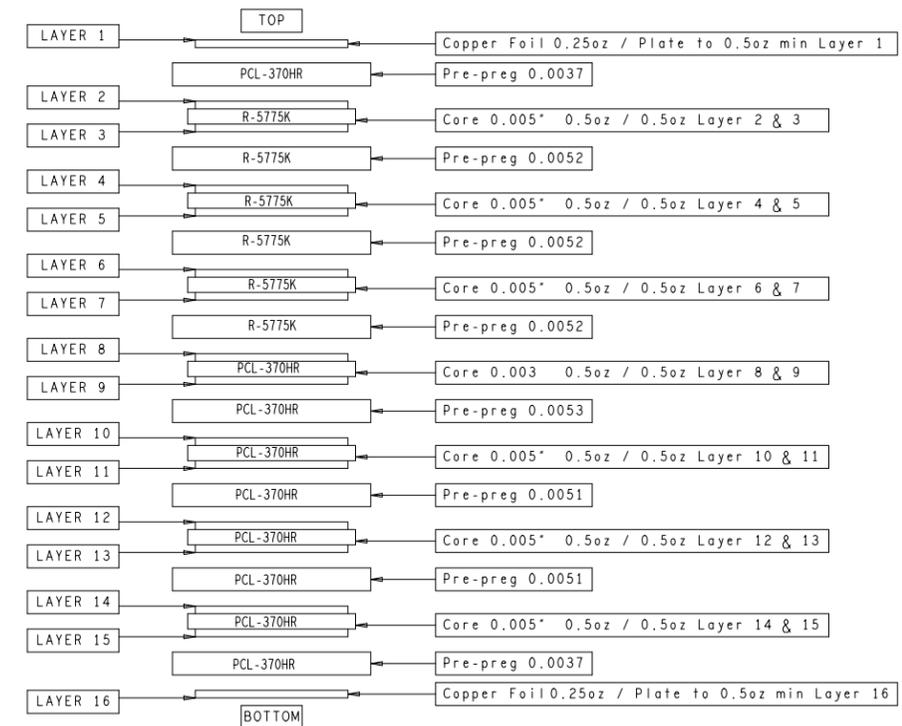
UNLESS OTHERWISE SPECIFIED, ALL NOTES ARE APPLICABLE.  
 NOTES PRECEDED BY AN UNMARKED "□" ARE NOT APPLICABLE.

- 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.
- HOLE SIZE APPLIES AFTER PLATING. TOLERANCE TO BE +/- .003.
- REGISTRATION TOLERANCE: ARTWORK +/- .002  
 ALL HOLE CENTERS +/- .005 FROM DIMENSION DATUM.
- MINIMUM COPPER WALL THICKNESS SHALL BE .001 INCH.  
 FOR ALL PLATED THROUGH HOLES. BREAKOUT NOT ALLOWED.
- 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: 0.085 +/- 10%
- MANUFACTURE'S UL MARKING, FLAMMABILITY RATING, LOGO AND DATE CODE TO BE PLACED IN SILKSCREEN ON BOTTOM SIDE OF THE BOARD.
- SOLDERMASK BOTH SIDES USING TAIYO (OR EQUIVALENT).  
 COLOR=RED (0.001 TO 0.002" THICK OVER METAL).
- SILKSCREEN  TOP SIDE  BOTH SIDES. USING  YELLOW  WHITE NPI LEADFREE.  
 REGISTRATION TOLERANCE TO BE +/- .005. INK IS NOT ALLOWED ON EXPOSED PLATED AREA.
- P.C.C. BOARD TO BE FREE OF DIRT, OIL, FINGER PRINTS, ETC.
- BOARD WARPAGE: WARP AND TWIST SHALL NOT EXCEED .007 INCH PER INCH.  
 MEASURED AT ANY LOCATION OR DIRECTION ON THE BOARD.
- BOARD MUST BE 100% ELECTRICALLY TESTED TO ENSURE NO SHORTS OR OPEN CIRCUITS AT 20V.
- ALL INNER LAYER UNCONNECTED PADS SHALL BE REMOVED.

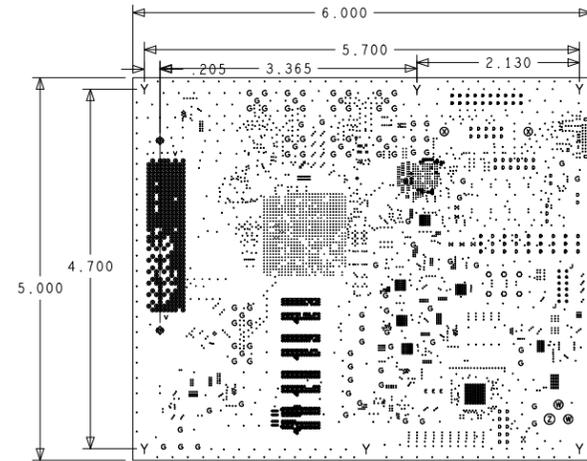
- OUTER LAYERS USING A 5.7 mil TRACE WIDTH SHALL BE 50ohms SINGLE ENDED, +/- 10% TOLERANCE.  
 INNER LAYERS 3, 5, & 7 USING A 4.7 mil TRACE WIDTH SHALL BE 50ohms SINGLE ENDED, +/- 10% TOLERANCE.  
 INNER LAYERS 12, 14 USING A 4.2 mil TRACE WIDTH SHALL BE 50ohms SINGLE ENDED, +/- 10% TOLERANCE.  
 OUTER LAYERS USING A 4.0 mil TRACE WIDTH AND 6.0 mil SPACING SHALL BE 100 ohms DIFFERENTIAL, +/- 10% TOLERANCE.  
 INNER LAYERS 3, 5, 7 USING A 4.0 mil TRACE WIDTH AND 6.0 mil SPACING SHALL BE 100 ohms DIFFERENTIAL, +/- 10% TOLERANCE.  
 INNER LAYERS 12, 14 USING A 3.6 mil TRACE WIDTH AND 6.4 mil SPACING SHALL BE 100 ohms DIFFERENTIAL, +/- 10% TOLERANCE.
- MINIMUM COPPER CONDUCTOR WIDTH IS: 3.5 MIL.  
 MINIMUM COPPER SPACING IS: 4 MIL.
- SMOBC/IMMERSION GOLD: 3-8 uIN OVER 100-200 uIN NICKEL PLATING.
- GROUND ETCH TO BOARD EDGE IS INTENTIONAL. DO NOT PULL BACK.
- NO CHANGES TO ANY ARTWORK ARE PERMITTED WITHOUT WRITTEN AUTHORIZATION.
- FINISHED BOARD MUST BE RoHS COMPLIANT AND SURVIVE A LEAD FREE ASSEMBLY.  
 MAXIMUM REFLOW OF 260 DEGREES C (6 PASSES).
- FILL ALL VIAS USING CONDUCTIVE MATERIAL.

REVISIONS			
ZONE	LTR	DESCRIPTION	DATE

DETAIL "A"



DRILL CHART: TOP to BOTTOM			
ALL UNITS ARE IN MILS			
FIGURE	SIZE	PLATED	QTY
.	6.0	PLATED	6
•	6.0	PLATED	457
-	8.0	PLATED	865
•	10.0	PLATED	315
.	10.0	PLATED	24
-	10.0	PLATED	1950
•	12.0	PLATED	126
•	12.008	PLATED	125
•	32.0	PLATED	12
•	35.0	PLATED	30
•	38.0	PLATED	56
•	40.0	PLATED	3
•	50.0	PLATED	2
o	55.0	PLATED	6
o	62.0	PLATED	55
o	67.0	PLATED	36
•	106.0	PLATED	2
o	120.0	PLATED	2
o	140.0	PLATED	1
v	50.0	NON-PLATED	2
o	110.0	NON-PLATED	2
Y	125.0	NON-PLATED	6
o	60.0x34.0	PLATED	2



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES +/- .XX +/- .01 +/- XXX +/- .005 +/-	CONTRACT NO.		TEXAS INSTRUMENTS INC.	
	APPROVALS	DATE		
MATERIAL SEE NOTE 5	DRAWN	L. NGUYEN	FABRICATION DRAWING TSW14J56EVM	
	ENGR	E. DWOBENG/J. SETON		
FINISH SEE NOTES 7, 8, 9	SIZE		CODE IDENT NO.	DRAWING NO.
DO NOT SCALE DRAWING	SCALE		NONE	SHEET 1 OF 1