



UNLESS OTHERWISE SPECIFIED. ALL NOTES ARE APPLICABLE.

- APPLICATION DESIGN, MANUFACTURING AND INSPECTION DOCUMENTS.
IPC-2221A & IPC-2222 / DESIGN STANDARD FOR RIGID PRINTED CIRCUIT BOARDS AND RIGID PRINTED BOARD ASSEMBLIES.
IPC-6012 / QUALIFICATION AND PERFORMANCE SPECIFICATION FOR RIGID PRINTED BOARD, CLASS 2, CURRENT REVISION.
IPC-A-600 / ACCEPTABILITY OF PRINTED BOARDS, CLASS 2, CURRENT REVISION.
- VIA SIZE APPLY AFTER PLATING. TOLERANCE TO BE +.003/- .010.
HOLE SIZE APPLY 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: MULTI-LAYER (SEE DETAIL 'A')
SEE LAYER STACKUP FOR ALL PRE-PREG & CORE THICKNESSES, COPPER OZ AND MATERIAL. FINISHED BOARD THICKNESS: .062 +/- 10%
- MANUFACTURE'S UL MARKING, FLAMMABILITY RATING, LOGO AND DATE CODE TO BE PLACED IN SILKSCREEN ON BOTTOM SIDE OF THE BOARD.
- SMOBC/IMMERSION GOLD: 2 - 5 uIN OVER 118-236 uIN NICKEL PLATING.
- SOLDERMASK BOTH SIDES USING TAIYO (OR EQUIVALENT)
COLOR = RED.
- SILKSCREEN BOTH SIDES USING WHITE NPI LEADFREE.
REGISTRATION TOLERANCE TO BE +/- .005.
INK IS NOT ALLOWED ON EXPOSED PLATED AREA.
- P.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.

- MINIMUM COPPER CONDUCTOR WIDTH IS: 3.4 MIL
MINIMUM COPPER CONDUCTOR SPACING IS: 3.5MIL.
- ALL INNER LAYER UNCONNECTED PADS SHALL BE REMOVED.
- PWB MUST BE ROHS COMPLIANT AND SURVIVE LEAD FREE ASSEMBLY, MAX REFLOW OF 260 DEGREES C (6 PASSES).
- ALL THROUGH VIAS TO BE PLUGGED WITH NON-CONDUCTIVE EPOXY MATERIAL.
PLUGGED VIAS TO BE PLATED AFTER PLUGGING TO PRESENT FLAT SURFACE TO DEVICE.
NO POTHOLE.
- BOARD DIMENSIONS ARE IN INCHES (MM).
- ALL HOLES LESS THAN 12 MIL ARE NOT FINISHED HOLE SIZE

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	8.0	+3.0/-3.0	PLATED	2002
•	10.0	+3.0/-3.0	PLATED	91
•	12.0	+3.0/-3.0	PLATED	504
•	16.0	+3.0/-3.0	PLATED	8
•	16.0	+3.0/-3.0	PLATED	53
•	40.0	+3.0/-3.0	PLATED	14
•	40.0	+3.0/-3.0	PLATED	18
•	62.0	+3.0/-3.0	PLATED	4
•	63.0	+3.0/-3.0	PLATED	4
•	67.0	+3.0/-3.0	PLATED	16
⊙	106.0	+3.0/-3.0	PLATED	2
⊙	120.0	+3.0/-3.0	PLATED	2
⊙	125.0	+3.0/-3.0	PLATED	4
⊙	140.0	+3.0/-3.0	PLATED	1
•	50.0	+2.0/-0.0	NON-PLATED	2
•	62.0	+2.0/-0.0	NON-PLATED	12

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IMPEDANCE TABLE.

	50 OHM SINGLE ENDED		100 OHM DIFFERENTIAL TIGHTLY COUPLED			100 OHM DIFFERENTIAL LOOSELY COUPLED		
	TRACE WIDTH (MILS)	TOL (%)	TRACE WIDTH (MILS)	SPACING (MILS)	TOL (%)	TRACE WIDTH (MILS)	SPACING (MILS)	TOL (%)
L01_TOP	11	5 %	6	5	10 %	10	18	10 %
L03_SIG1	3.5	10 %	3.4	6.6	10 %	—	—	—
L05_SIG2	3.5	10 %	3.4	6.6	10 %	—	—	—
L10_SIG3	3.5	10 %	3.4	6.6	10 %	3.6	13	10 %
L12_SIG4	—	—	3.4	6.6	10 %	—	—	—
L12_BOTTOM	11	5 %	6	5	10 %	10	18	10 %

DETAIL 'A'

LAYER	THICKNESS	PRIMARY STACKUP	DESCRIPTION
SOLDERMASK TOP	0.0005		Taiyo 4000-BN
LAYER 1 TOP	0.0020		1/4oz Sig (Std Plt)
LAYER 2 GND1	0.0056	1035-75%	R-5670K
	0.0006	1035-75%	1/2oz P/G
	0.0030	0.0030 (1-1078)	R-5775K
	0.0006		
LAYER 3 SIG1	0.0006		1/2oz Sig
LAYER 4 GND2	0.0039	1078-75%	R-5670K
	0.0006		1/2oz P/G
	0.0030	0.0030 (1-1078)	R-5775K
	0.0006		
LAYER 5 SIG2	0.0006		1/2oz Sig
LAYER 6 GND3	0.0038	1078-75%	R-5670K
	0.0012		1oz P/G
	0.0026	0.0026 (1-1078)	R-5775K
	0.0012		
LAYER 7 PWR1	0.0012		1oz P/G
LAYER 8 PWR2	0.0039	1078-75%	R-5670K
	0.0012		1oz P/G
	0.0026	0.0026 (1-1078)	R-5775K
	0.0012		
LAYER 9 GND4	0.0012		1oz P/G
LAYER 10 SIG3	0.0038	1078-75%	R-5670K
	0.0006		1/2oz Sig
	0.0030	0.0030 (1-1078)	R-5775K
	0.0006		
LAYER 11 GND5	0.0006		1/2oz P/G
LAYER 12 SIG4	0.0039	1078-75%	R-5670K
	0.0006		1/2oz Sig
	0.0030	0.0030 (1-1078)	R-5775K
	0.0006		
LAYER 13 GND6	0.0006		1/2oz P/G
LAYER 14 BOTTOM	0.0056	1035-75%	R-5670K
	0.0020	1035-75%	
	0.0020		1/4oz Sig (Std Plt)
	0.0005		Taiyo 4000-BN

MATERIALS: PANASONIC R-5670K MEGTRON 6 PREPREG
PANASONIC R-5775K MEGTRON 6

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES +/- .XX +/- .01 +/- .XXX +/- .005 +/-	CONTRACT NO.		TEXAS INSTRUMENTS INC.					
	APPROVALS		DATE		FABRICATION DRAWING ADC12DL3200EVM			
	DRAWN	PACTRON	03-13-18					
	ENG	J BRINKHURST	03-13-18					
MATERIAL								
SEE NOTE 5								
FINISH			SIZE	CODE IDENT NO.	DRAWING NO.		REV.	
SEE NOTE 7, 8, 9			D		DC041		A	
DO NOT SCALE DRAWING			SCALE		NONE		SHEET 1 OF 1	