

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 $\pm .003/- .010$.
HOLE SIZE APPLY AFTER PLATING. TOLERANCE TO BE $\pm .003$.
- REGISTRATION TOLERANCE: ARTWORK $\pm .002$.
ALL HOLE CENTERS $\pm .005$ 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: $.062 \pm 10\%$
- MANUFACTURE'S UL MARKING, FLAMMABILITY RATING, LOGO AND DATE CODE TO BE PLACED IN SILKSCREEN ON BOTTOM SIDE OF THE BOARD.
- SMOBC/IMMERSSION GOLD: 2 - 5 μ IN OVER 118-236 μ IN NICKEL PLATING.
- SOLDERMASK BOTH SIDES USING TAIYO (OR EQUIVALENT)
COLOR = RED.
- SILKSCREEN BOTH SIDES USING WHITE NPI LEADFREE.
REGISTRATION TOLERANCE TO BE $\pm .005$.
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: 5MIL.
MINIMUM COPPER CONDUCTOR SPACING IS: 4.5MIL.
- 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 POTHOLES.

BACKDRILL SHOULD NOT DISCONNECT THE PAD IN L10_SIG-2

BACKDRILL: TOP to L10_SIG-2				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	8.01		PLATED	40

SEE NOTE 16

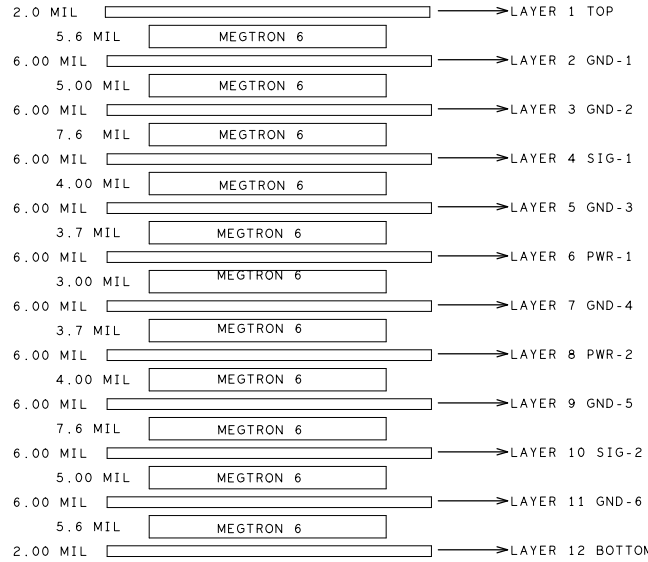
NOTES:
- DRILL SIZES LISTED IN LEGEND ARE CONSIDERED FINISHED.
- VENDOR IS REQUIRED TO SELECT TOOLING FOR OVERDRILLING.
- LEGEND DOES NOT SPECIFY DEPTH INTO ADJACENT DIELECTRIC LAYER.

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	8.0	$\pm 3.0/-10.0$	PLATED	1712
•	8.0	USE 10 MIL DRILL BIT & FINISH THE HOLE TO 8 MIL	PLATED	30
•	8.01	USE 10 MIL DRILL BIT & FINISH THE HOLE TO 8 MIL	PLATED	40
•	10.0	$\pm 3.0/-10.0$	PLATED	122
•	12.0	$\pm 3.0/-10.0$	PLATED	98
•	13.0	$\pm 3.0/-10.0$	PLATED	16
•	15.0	$\pm 3.0/-10.0$	PLATED	8
r	38.0	$\pm 3.0/-3.0$	PLATED	32
e	40.0	$\pm 3.0/-3.0$	PLATED	17
H	59.0	$\pm 3.0/-3.0$	PLATED	24
J	62.0	$\pm 3.0/-3.0$	PLATED	2
K	63.0	$\pm 3.0/-3.0$	PLATED	2
M	67.0	$\pm 3.0/-3.0$	PLATED	8
⊕	106.0	$\pm 3.0/-3.0$	PLATED	2
⊙	120.0	$\pm 3.0/-3.0$	PLATED	2
R	125.0	$\pm 3.0/-3.0$	PLATED	2
Ⓢ	140.0	$\pm 3.0/-3.0$	PLATED	1
r	39.0	$\pm 3.0/-3.0$	NON-PLATED	2
u	50.0	$\pm 3.0/-3.0$	NON-PLATED	2

SEE NOTE 16
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED

LAYER STACK-UP
THIS IS A 12 LAYER BOARD



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	5 %	10	18	5 %
L04_SIG-1	5.5	5 %	4.9	7.1	5 %	NIL	NIL	NIL
L10_SIG-2	6.5	5 %	5.5	6.5	5 %	6.3	20.1	5 %
L12_BOTTOM	11	5 %	6	5	5 %	10	18	5 %

THIS BOARD IS FOR THE FOLLOWING DEVICES:
ADC08DJ2700, ADC08DJ3200, ADC12DJ1600, ADC12DJ2700, ADC12DJ3200

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES +/- .XX +/- .01 +/- .XXX +/- .005 +/-	CONTRACT NO.		TEXAS INSTRUMENTS INC.			
	APPROVALS		FABRICATION DRAWING			
	DRAWN JV SMITH		ADC12DJ3200EVM			
	ENG J BRINKHURST					
MATERIAL			SIZE	CODE IDENT NO.	DRAWING NO.	REV.
SEE NOTE 5			D		HSP-001	A
FINISH						
SEE NOTE 7, 8, 9						
DO NOT SCALE DRAWING			SCALE	NONE	SHEET 1 OF 1	