



PRIMARY SIDE VIEW



TEXAS INSTRUMENTS			
BOARD NAME: DDP442X FORMATTER 2513335		DESCRIPTION: FABRICATION DRAWING	
PROJECT #: DLP-65270		DATE: 15 JUN 2016	REVISION:

FAB NOTES:

1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. ALL BOARD OUTLINE DIMENSION TOLERANCES ARE +/- .010".
2. THE PWB SHALL BE FABRICATED TO IPC-6012 CLASS 2 AND WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2. CURRENT REVISIONS.
3. BOARD MATERIAL SHALL BE 180 Tg/340 Td ISOLA FR-370HR OR EQUIVALENT, RoHS COMPLIANT AND LEAD FREE ASSEMBLY CAPABLE. BOARD MATERIAL SHALL MEET OR EXCEED IPC-4101B. RoHS CERTIFICATE OF CONFORMANCE SHALL BE DELIVERED WITH EACH LOT.
4. BOARD MATERIAL & CONSTRUCTION TO BE U.L. APPROVED AND MARKED ON THE FINISHED BOARD.
5. MINIMUM COPPER WALL THICKNESS OF PLATED-THRU HOLES TO BE .001 INCH, WITH A MINIMUM ANNULAR RING OF .001 INCH.
6. OVERALL BOARD THICKNESS TO BE .062 +/- 10% AND APPLIES AFTER ALL LAMINATION AND PLATING PROCESSES, MEASURED FROM COPPER TO COPPER.
7. MAX. WARP & TWIST TO BE .0075 INCHES PER INCH.

PROCESS NOTES:

1. PLATE ALL EXPOSED AREAS, BOTH SIDES, EXCEPT AS INDICATED IN NOTE 6 WITH 5 MICROINCHES MINIMUM, 15 MICROINCHES MAXIMUM, ELECTROLYTIC HARD GOLD OVER A MINIMUM OF 150 MICROINCHES ELECTROLYTIC NICKEL.
2. APPLY LPI SOLDERMASK.  
COLOR: GREEN. SOLDERMASK SHALL CONFORM TO IPC-SM-840, CLASS H. CURRENT REV. SOLDERMASK SHALL BE COMPATIBLE WITH SAC305 OR EQUIVALENT SOLDER ALLOY AND SOLDER FLOAT BATH TEMPERATURE OF 288°C.
3. SOLDERABILITY SHALL BE IN ACCORDANCE WITH IPC/EIA J-STD-003A, WITH SOLDER BATH TEMPERATURE OF 250°C +/-5 C FOR DIP OR ROTARY TEST.
4. APPLY LPI SILKSCREEN OR EQUIVALENT PER THE ARTWORK.  
COLOR: WHITE.
5. BOARD MUST BE ELECTRICALLY TESTED USING SUPPLIED IPC-D-356 NETLIST.
6. PLATE INDICATED PAD AREAS, SECONDARY SIDE, WITH A MINIMUM OF 35, MAXIMUM 50 MICROINCHES ELECTROLYTIC HARD GOLD OVER A MINIMUM OF 100 MICROINCHES OF ELECTROLYTIC NICKEL.
7. FABRICATION VENDOR IS ALLOWED TO INCREASE SOLDERMASK COMPONENT PADS BY A MAXIMUM 1 MIL ON EACH SIDE OVER THE COPPER PAD IN ORDER TO MEET TOOLING REQUIREMENTS WHILE MAINTAINING WEBBING BETWEEN ADJACENT PADS.

LAYER STACK:

- LAYER 1 - PRIMARY SIDE - 0.5oz START - 50 OHMS +/-10% - .007 WIDTH  
DIFFERENTIAL 100 OHMS +/-10% - .00425 WIDTH/.00475 SPACE  
.006
- LAYER 2 - GND PLANE - 2oz  
.005
- LAYER 3 - SIGNAL - 1oz - 50 OHMS +/-10% - .00675 WIDTH  
DIFFERENTIAL 100 OHMS +/-10% - .004125 WIDTH/.00588 SPACE  
.028
- LAYER 4 - SIGNAL - 1oz - 50 OHMS +/-10% - .00675 WIDTH  
DIFFERENTIAL 100 OHMS +/-10% - .004125 WIDTH/.00588 SPACE  
.005
- LAYER 5 - SPLIT PWR PLANE - 2oz  
.006
- LAYER 6 - SECONDARY SIDE - 0.5oz START - 50 OHMS +/-10% - .007 WIDTH  
DIFFERENTIAL 100 OHMS +/-10% - .00425 WIDTH/.00475 SPACE

ADJUST DIELECTRIC THICKNESS TO MEET SPECIFIED IMPEDENCE

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
.	9.0	+3.0/-9.0	PLATED	580
*	12.0	+3.0/-12.0	PLATED	2013
•	16.0	+3.0/-3.0	PLATED	48
•	20.0	+3.0/-3.0	PLATED	14
◦	28.0	+3.0/-3.0	PLATED	64
◊	35.0	+3.0/-3.0	PLATED	5
△	36.0	+3.0/-3.0	PLATED	4
◌	38.0	+3.0/-3.0	PLATED	22
□	40.0	+3.0/-3.0	PLATED	75
A	42.0	+3.0/-3.0	PLATED	20
◌	42.0	+3.0/-3.0	PLATED	6
B	45.0	+3.0/-3.0	PLATED	14
C	50.0	+3.0/-3.0	PLATED	20
D	90.0	+2.0/-2.0	PLATED	2
E	120.0	+2.0/-2.0	PLATED	4
F	157.0	+2.0/-2.0	PLATED	6
•	25.98	+2.0/-2.0	NON-PLATED	2
H	40.0	+2.0/-2.0	NON-PLATED	4
I	50.0	+2.0/-2.0	NON-PLATED	2
J	60.0	+2.0/-2.0	NON-PLATED	4
K	66.0	+2.0/-2.0	NON-PLATED	2
L	74.0	+2.0/-2.0	NON-PLATED	2
M	92.5	+2.0/-2.0	NON-PLATED	4
N	94.0	+2.0/-2.0	NON-PLATED	1
○	182.0	+2.0/-2.0	NON-PLATED	2