



Board Characteristics - 14 LAYER BOARD

- Material: Megtron6
- Minimum trace width: 0.006" and clearance: 0.005" on Signal_1,6 (Top and Bottom);
- Minimum trace width and clearance: 0.005" on Signal_2,3,4,5,7,8,9,10,11,12 (all stripline);
- 1 oz copper for all power layers and for Signal_1,2 (Top and Bottom)
1/2 oz copper for Stripline trace layers (Signal_2,3,4,5,7,10,11,12).
- Electroless Nickel Immersion Gold plating, with min. Ni: 2.5-5 um; Au: 0.05-0.2 um.
Apply Solder Mask over bare copper.
- Board Thickness: 0.093 +/- 0.008
- Mill the Top and Bottom of board on the solder side to a remaining thickness of 0.063" +/- 0.008
- Silkscreen on Component and Solder Sides.
- 45 degree chamfer.
- FHS tolerances: +/- 0.003 unless specified otherwise.
- Interlayer spacing as specified.
- Zc=55 Ohm, Zd=100 Ohm for all 0.005" stripline and all 0.006" microstrip traces.
Perform TDR test for all signal layers.
Present TDR test results for all signal layers.
- Via Fill and Overplate:
Vias of this diameter must be completely filled with Peters PP-2795 or equivalent, planarized, and plated over with Copper and surface finish.
The plated cap must adhere to fill material after 1x 550F solder shock.
- Remove all non-functional inner layer pads for pins and vias.
- Do not increase size of thermal pads and associated spoke connections on holes.

BOARD'S DRILL SCHEDULE

| DRILL SYMBOL | DRILL SIZE | COUNT | PLATED | Tolerance | COMMENT |
|--------------|------------|-------|--------|-----------|---------|
| ○ | .009 | 1532 | YES | --- | |
| ⊞ | .0091 | 2538 | YES | --- | Note 13 |
| ⊙ | .011811024 | 10 | YES | --- | |
| ⊞ | .02 | 4 | YES | --- | |
| ⊙ | .033464567 | 2 | YES | --- | |
| ⊞ | .035 | 14 | YES | --- | |
| ⊙ | .037401575 | 18 | YES | --- | |
| □ | .041 | 530 | YES | --- | |
| | .041338583 | 20 | YES | --- | |
| | .042 | 20 | YES | --- | |
| | .052 | 10 | YES | --- | |
| | .057 | 6 | YES | --- | |
| | .061023622 | 4 | YES | --- | |
| | .062 | 8 | YES | --- | |
| | .06496063 | 2 | NO | --- | |
| | .066 | 2 | YES | --- | |
| | .07 | 4 | YES | --- | |
| | .106 | 4 | NO | --- | |
| | .10629921 | 2 | YES | --- | |
| | .12598425 | 2 | NO | --- | |
| | .12795276 | 2 | YES | --- | |
| | .15 | 8 | NO | --- | |

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|---|-------------------|-----------|--|----------|---------------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES .XX .XXX DO NOT SCALE DRAWING | CONTRACT NO. | | UNIVERSITY OF CHICAGO ELECTRONICS DEVELOPMENT GROUP | | |
| | APPROVALS | DATE | TITLE | | |
| | DRAWN M. Bogdan | 4/25/2016 | 20-BIT ADC Board Specification Drawing | | |
| | CHECKED M. Bogdan | 4/25/2016 | SIZE B | FSCM NO. | DWG. NO. 2866 |
| ISSUED | | | | REV. A | |
| SIMILAR TO | ACT. WT | CALC WT | SCALE 1/2 | SHEET | |