



SCAN OPERATOR QUALITY ASSURANCE PROCEDURES

BEFORE CHECKPLOTS

FILM

1. Inspect for Undetermined vectors
2. Verify Width Off
3. Verify Spacing (as specified)
4. Validate Text
5. Drill Verification
 - 5.1 Verify Size of holes
 - 5.2 Verify Number of holes
 - 5.3 Verify NPT location
 - 5.4 Verify Location of dimensioned holes
6. Output file for checkplots

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SCAN OPERATOR QUALITY ASSURANCE PROCEDURES

BEFORE CHECKPLOTS

BOARDS

1. Inspect for Unterminated Vectors
2. Verify Width Off
3. Verify Spacing (as specified)
4. Verify Anular Ring
5. Check for Minimum Conductor Width
6. Output Layers in Opposite Polarity of Supplied Media

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SCAN OPERATOR QUALITY ASSURANCE PROCEDURES

BEFORE CHECKPLOTS

DRILLS

1. Open the PCB on PCB edit.
2. Select drill layer.
3. If you have a print of the board, check for any holes that have been dimensioned.
4. Check which layer is used as a reference on the drill and select this layer as reference on PCB edit, but keep the drill layer as your active layer.
5. Turn on pad snap and using your measuring tool check all the dimensions from the print.
 - A. If the dimensions are off, make a copy of the print and mark the correct dimension, next to the one on the print and highlight it.
6. Check the hole sizes and quantities on the PCB and compare to the hole chart on the print.
 - A. Note any discrepancies between the print and the PCB on the copy of the print. (Sometimes the hole chart will have the wrong quantity of holes listed.)
 - B. Check the location of any extra hole against the outer layers and the silkscreen layer if available.
7. Sign off and date the green sheet and note any discrepancies on the remark section.
8. Tape the copy of the print with all the notes to the outside of the bag and give to operator so corrections can be made to file.

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LAB QUALITY ASSURANCE PROCEDURES

FILM

1. Create negative Checkplot of scan data.
2. Make Diazo copies of checkplot.
3. Make positive Diazo copies of customer supplied artwork.
4. Overlay Diazos
 - 4.1 Scanned data (diao) top
 - 4.2 Verify Registration
 - 4.3 Temporarily bind films
5. Validate Scale
6. Inspect Under Magnification (minimum required = 2.5x).
7. Identify Added Features (clear). Identify errors (circle & number sequentially for each layer) with blue Sharpie
8. Identify Missing Features (dark image). Identify errors (circle & number sequentially for each layer) with blue Sharpie
9. Validate Text (overlay and side-by-side). Identify errors (circle & number sequentially for each layer) with blue Sharpie
10. Verify Feature Size Conformity ± 5 mils. Identify errors (circle & number sequentially for each layer) with blue Sharpie
11. Verify Feature Shape. Identify errors with Blue Sharpie (circle & number sequentially for each layer) with blue Sharpie.
12. Total number of errors on each layer and identify with correction tape on lower right-hand side of each layer.
13. Group layers with corrections and tape to outside of job's package.
14. Quality assurance sign off on Green Sheet and return to Scan Operator for Correction/and or transmission to customer.
15. Operator will correct errors and initial over the correction tape that indicates the total number of corrections for each layer.

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BOARDS

1. Create positive Checkplots from scan data (include drill layer and outline)
2. Make Diazo copy of checkplots (positive)
3. Overlay Diazos to Board
 - 3.1 Scanned data (diao) top
 - 3.2 Validate Registration
 - 3.3 Temporarily Bind Films
4. Validate Scale
5. Inspect under Magnification
6. Identify Added Features (clear). Identify errors (circle & number sequentially for each layer) with blue Sharpie
7. Identify Missing Features (dark image). Identify errors (circle & number sequentially for each layer) with blue Sharpie
8. Validate Text (overlay and side-by-side). Identify errors (circle & number sequentially for each layer) with blue Sharpie
9. Verify Feature Size Conformity ± 5 mils. Identify errors (circle & number sequentially for each layer) with blue Sharpie
10. Overlay Drill Layer (inspect for missing, extra, different holes). Circle & number sequentially for each layer with blue Sharpie.
11. Total number of errors on each layer and identify with correction tape on lower right-hand side of each layer.
12. Group layers with corrections and tape to outside of job's package.
13. Scan operator makes corrections and initials over correction tape that indicates the total number of errors on each layer.
13. If no corrections are required, Quality Assurance sign off on Green Sheet and returned to Scan operator for transmission to customer.
14. If Corrections were required, Scan operator returns job to Quality Assurance for second inspection and sign off of Green Sheet
15. Return to Scan operator for transmission to customer.

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LAB QUALITY ASSURANCE PROCEDURES

DRILL FILES FROM A CUSTOMER SUPPLIED FABRICATION DRAWING

1. Make a copy of customer supplied drawing.
2. Verify dimensioned hole locations and record inspection findings next to each dimension on the copy of print. Circle & number errors sequentially with blue Sharpie.
3. Total number of errors and identify with correction tape on the lower right-hand side of print.
4. Quality Assurance signs off on Green Sheet and returns package to operator for correction and/or transmission.

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