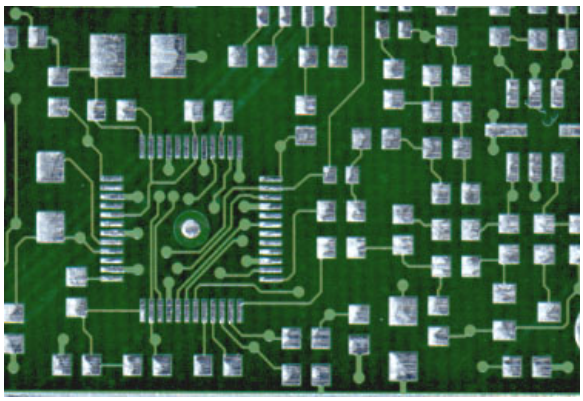
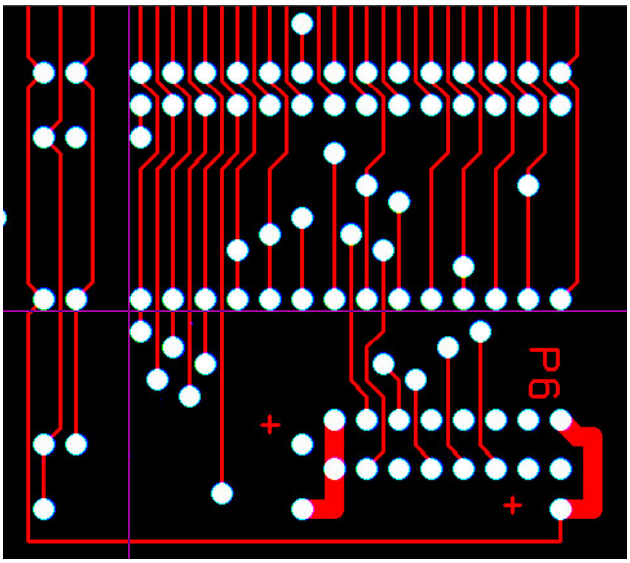
ScanFAB™

"Linking existing designs to CAD & Production"





WHAT IS ScanFAB?

ScanFAB is a fully integrated, stand-alone PCB reverse engineering system designed to create the needed Gerber data, drill files, and DXF data from existing printed circuit boards, artwork, film for today's automated production environments.

ScanFAB uses Windows based software integrated with a high-resolution, calibrated flatbed scanner. This combination allows re-engineering and precise reproduction of data for original board designs, regardless of input.

INPUT DATA VERSATILITY

ScanFAB adds flexibility to the fabrication process. Utilizing its calibrated scanner, ScanFAB inputs silver or diazo film, Mylar images, technical drawings, actual PCB's, Stencils, screens, flex, hybrid, multilayer PCB to produce necessary Gerber data.

AUTOMATIC FEATURES

Tired of missing CAD Gerber data? ScanFAB offers various functions to quickly and automatically create Gerber data:

- Flash Pads (circular, square, oval, rectangle)
- Tracks (orthogonal/all angle)
- Silkscreens
- Copper Fill Areas/Ground Planes
- Crosshatched Areas (90°/45°)
- Stencil Files

EDITING

Editing is performed in the Graphics Screen, a user-friendly editing environment. Using a combination of tool bars, "hot-keys" and menu-driven functions, the user is able to make corrections and modifications quickly and easily.

The multi-color display and multiple zoom levels allow selection of the most convenient editing environment.

VERIFICATION

Worried about the quality of the finished Gerber files? Use ScanFAB's "check functions" to verify the accuracy of circuit board design data.

These check functions will verify layer-to-layer pad alignment, eliminate "double-hits," air gap clearance check, identify tolerance violations and prevent opens and shorts.

PRODUCTION TOOLS

ScanFAB creates Gerber files as well as other data used in PCB production, including: Silkscreens, Drill Files, Soldermasks, Padmasters, Stencil Files, Panelized Images, DXF, Gerber-274x.

ScanFAB increases versatility in the working environment!

WHY USE ScanFAB?

- Necessity: Supply production with required Gerber data.
  Reverse Engineering lost board data.
- Flexibility: Use boards, films or stencils as input.
- Accuracy: Eliminate errors caused by old hand digitizing, hand-taping or camera step and repeat methods.
- Accuracy: Increase board quality by using internal check features.
- Security: Prevent film/drawing deterioration by storing images in electronic format.
- Security: Archive multiple copies of designs, both on and off-site.

SYSTEM FEATURES:

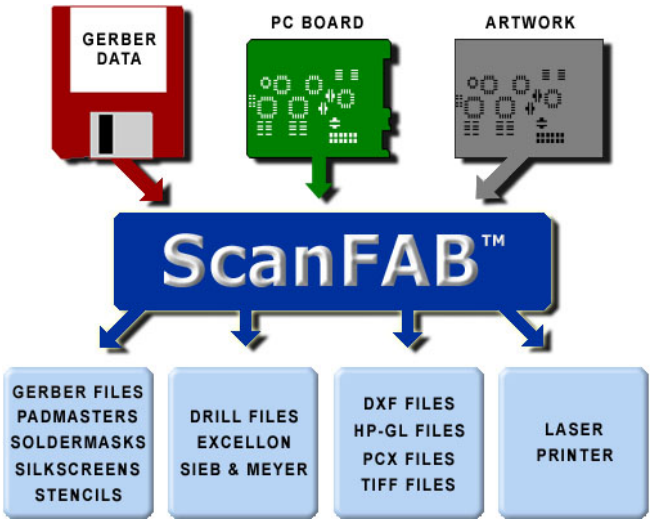
SCANNING
- Bareboards, film, paper, stencils, screens, diazo or silver film
- Verifiable image alignment
- Automatic layer-to-layer alignment

AUTOMATIC FUNCTIONS
- Pad recognition: circle, square, oval, rectangle
- Track recognition: all angles
- Copper area fill
- Ground/Power plane fill
- Cross-Hatching: 90° and 45°
- Pads and tracks on grid

EDITING
- Multi-color display
- Multi-level zoom function
- Gerber edit accuracy: 0.0001” (0.00254mm)
- Customized aperture tables
- Snap-to-Pad: center/track vertex
- Snap-to-Grid: pads/tracks
- Vertex display
- Multi-layer display
- Macros: create & store
- Automatic text function
- Metric or Inch

CHECK / VERIFICATION
- Highlight D Codes
- Delete "double-hit" pads
- Verify layer-to-layer pad alignment
- Check Gerber image vs. scanned image
- Compare Gerber image vs. Gerber image
- Compare one scanned image to another scanned image
- Design rule check
- Verify track connections

OUTPUT FILES
- Gerber files (274x or 274d)
- Comprehensive aperture tables
- Drill files: Excellon
Sieb & Meyer
- Stencil files
- Soldermask
- Padmaster
- Silkscreen
- HP-GL
- DXF
- PCX and TIFF
- Panelized images



TECHNICAL SPECIFICATIONS

SCANNER
- High-Resolution Flatbed Scanner, Size A3: (400/1000/2000/3200*/4000*/4800* dpi)
- Calibrated Accuracy: ± 0.0015” (± 0.0381mm)
- Scanning Bed Area: 11.7" x 16.5" (297mm x 420mm)
- Maximum Work Area: 32.0" x 32.0" (813mm x 813mm)

** Reduced scanning area for 3200, 4000& 4800 dpi.*

COMPUTER*
- Pentium (3GHz or higher) Personal Computer
- 80 GB HD, 2 GB RAM
- CD-ROM (CD-RW for archive purposes)
- Monitor
- Printer
- Win XP Service Pack 2
- 2 available USB ports

*Recommended customer supplied minimum PC requirements.

ADDITIONAL SYSTEM COMPONENT
- Precision Glass Calibration Grid
- Scanner Interface Card/Cable
- Optical Scope
- Software Protection Key
- Scanning Accessory Package
- Custom Transmissive Lighting Package
- Custom Desk (Optional)

(All specifications and designs subject to change without notice.)

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